RETURN TO AIL-NFT

5002 AND 5003
DIGITAL TEST INSTRUMENTS
Models 26.220 and 26.219
VOLUME II

EAI

ELECTRONIC ASSOCIATES INC. ■ LONG BRANCH, NEW JERSEY

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5002 AND 5003
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VOLUME II

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VOLUME II

5002 AND 5003 SERIES DIGITAL TEST INSTRUMENTS

DRAWINGS

1. INTRODUCTION

This volume contains schematic and wiring diagrams for the 5002 Series Digital AC-DC Voltmeter and the 5003 Series Digital Multimeter. To facilitate locating a particular sheet, an index is provided that lists the model number of each unit or component, the type of drawing, and the associated drawing number. The drawings are bound into the manual in the order listed under the Drawing Number column. The drawings are grouped by chassis into the following three groups: 5002A TDVM, 5003A TDVOM, and 5002B or 5003B AC-DC Converter. Each drawing is included only once; therefore, if it is used with two chassis, it is listed only under the first.

EAI drawings are prepared in accordance with standard drafting practices for electro-mechanical and electronic equipment. All symbols are in accordance with current government standards. Unless otherwise specified all resistance values are given in ohms and capacitance values in micro-micro farads (UUF).

2. INDEX

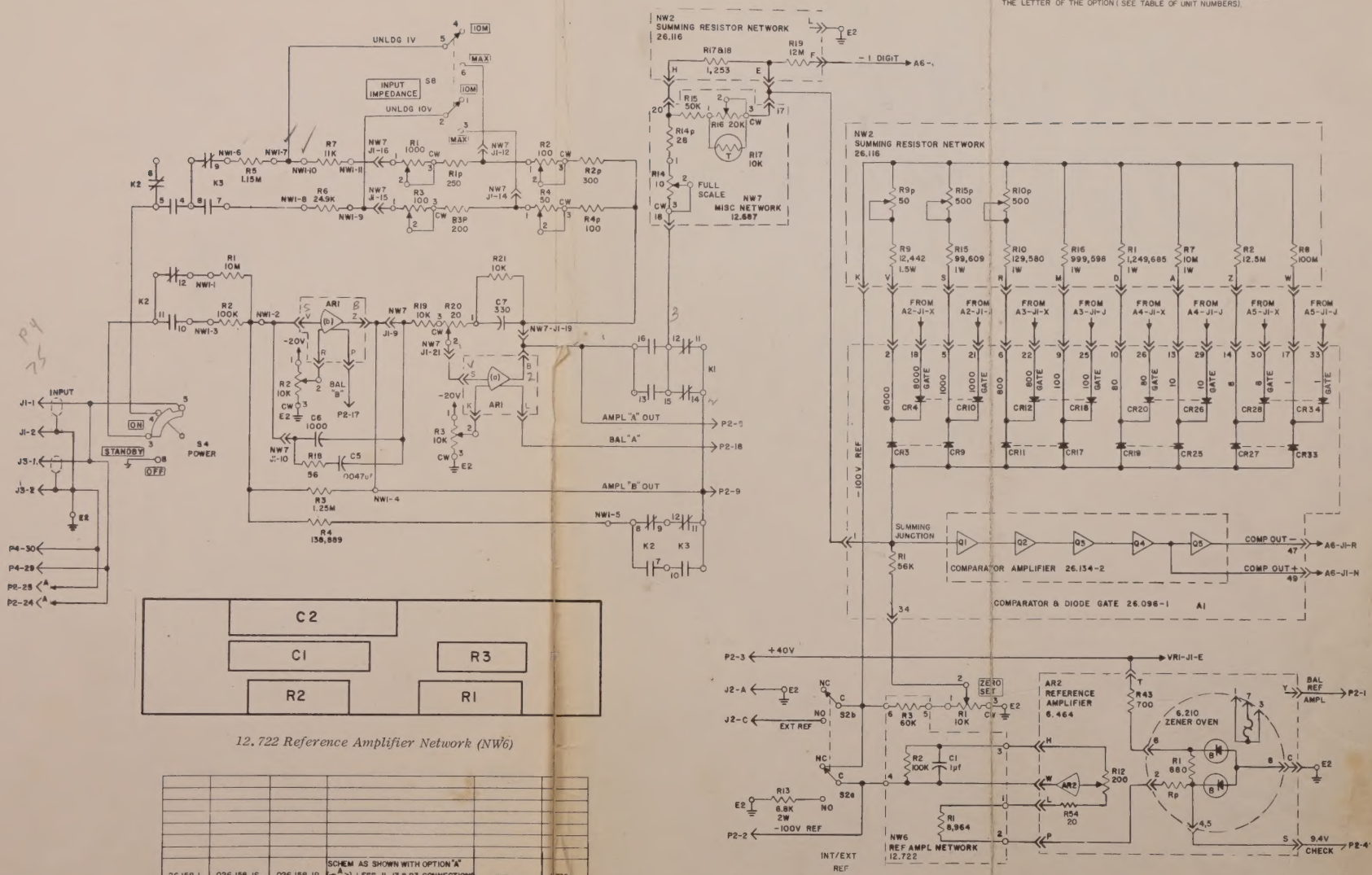
Unit or Component	Type of Drawing	Drawing Number
26.158-1 5002A Series TDVM	Schematic	D026 158 0S (Sheets 1 through 4)
	Wiring	B026 158 0W (Sheets 1 through 32)
6.463 Dual DC Amplifier	Schematic	D006 463 0S
6.464 Dual DC Amplifier	Schematic	D006 464 0S
12.687 Miscellaneous Network	Schematic	C012 687 0S
14.156 Auto Range Switching Network	Schematic	D014 156 0S
20.096-3 Comparator and Diode Gate	Schematic	C026 096 0S
	Wiring	B026 096 0W
26.134 Comparator Amplifier	Schematic	C026 134 0S
26.116 Summing Resistor Network	Schematic	C026 116 0S
43.094-1 Power Supply Regulator	Schematic	C043 094 0S
44.139-1 (-5) Binary Coded Decade Counter	Schematic	D044 139 0S
44.170-3 Programmer	Schematic	D044 170 0S

DRAWINGS (Cont)

Unit or Component	Type of Drawing	Drawing Number
47.048 Junction Box Connector	Wiring	B047 048 0W (Sheets 1 through 3)
51.010-1 Readout Storage Decade	Schematic	D051 010 0S (Sheet 1)
51.080-1 Readout Storage Decade	Schematic	D051 080 0S (Sheet 2)
26.212-1 5003A TDVOM	Schematic	D026 212 0S (Sheets 1 through 4)
	Wiring	B026 212 0W (Sheets 1 through 33)
49.038 AC-DC Converter	Schematic	D049 038 0S (Sheets 1 and 2)
	Wiring	B049 038 0W (Sheets 1 through 17)
6.334 Dual DC Amplifier	Schematic	D006 334 0S
6.617 Dual DC Amplifier	Schematic	D006 617 0S
43.031-2 Power Supply Regulator	Schematic	C043 031 0S (Sheet 2)

NOTE

A dash number added to the model number of a component indicates a variation of the particular model. A table of unit numbers on the schematic lists the changes for each variation. If no such table is included on the schematic, the unit is as shown.

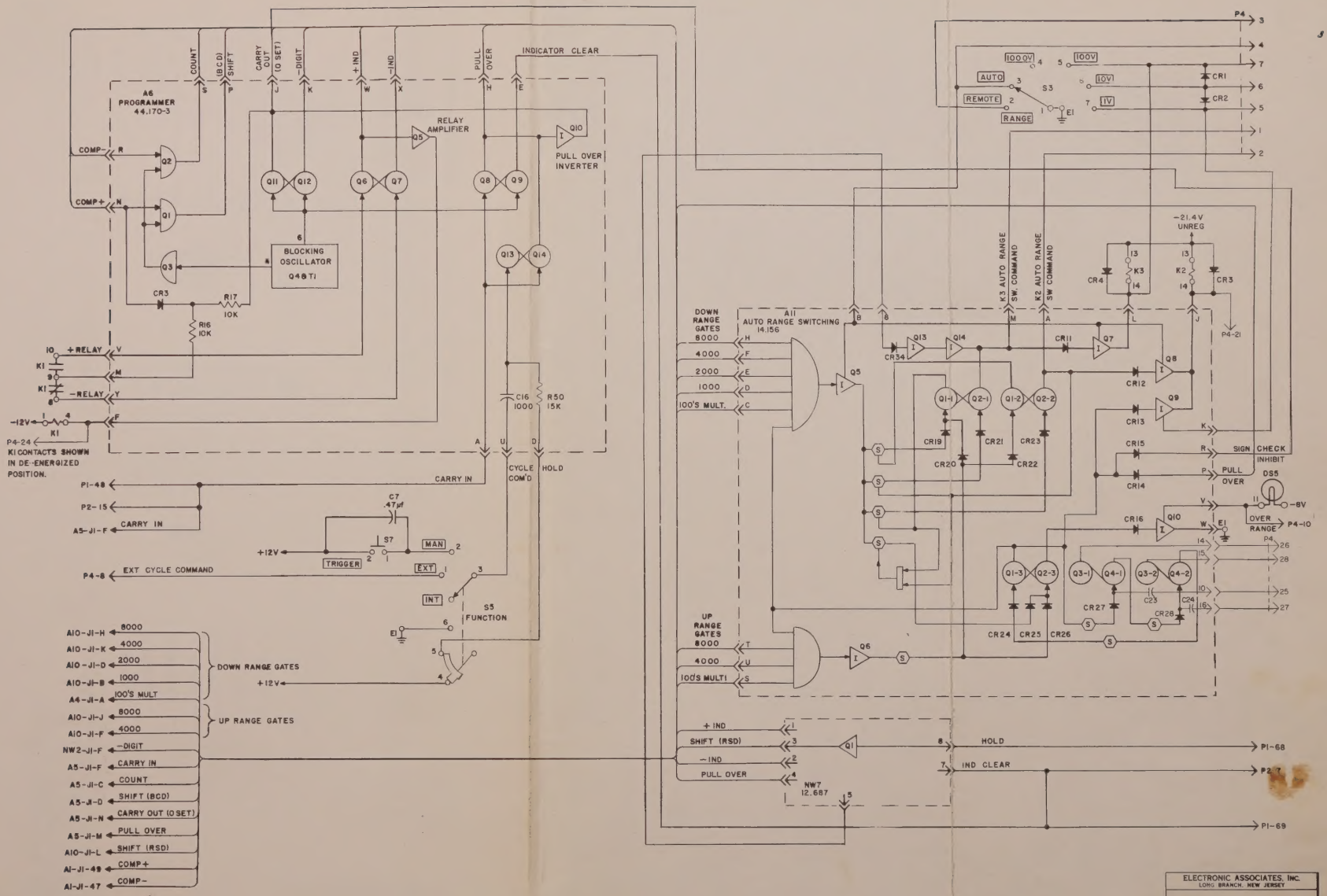


12.722 Reference Amplifier Network (NW6)

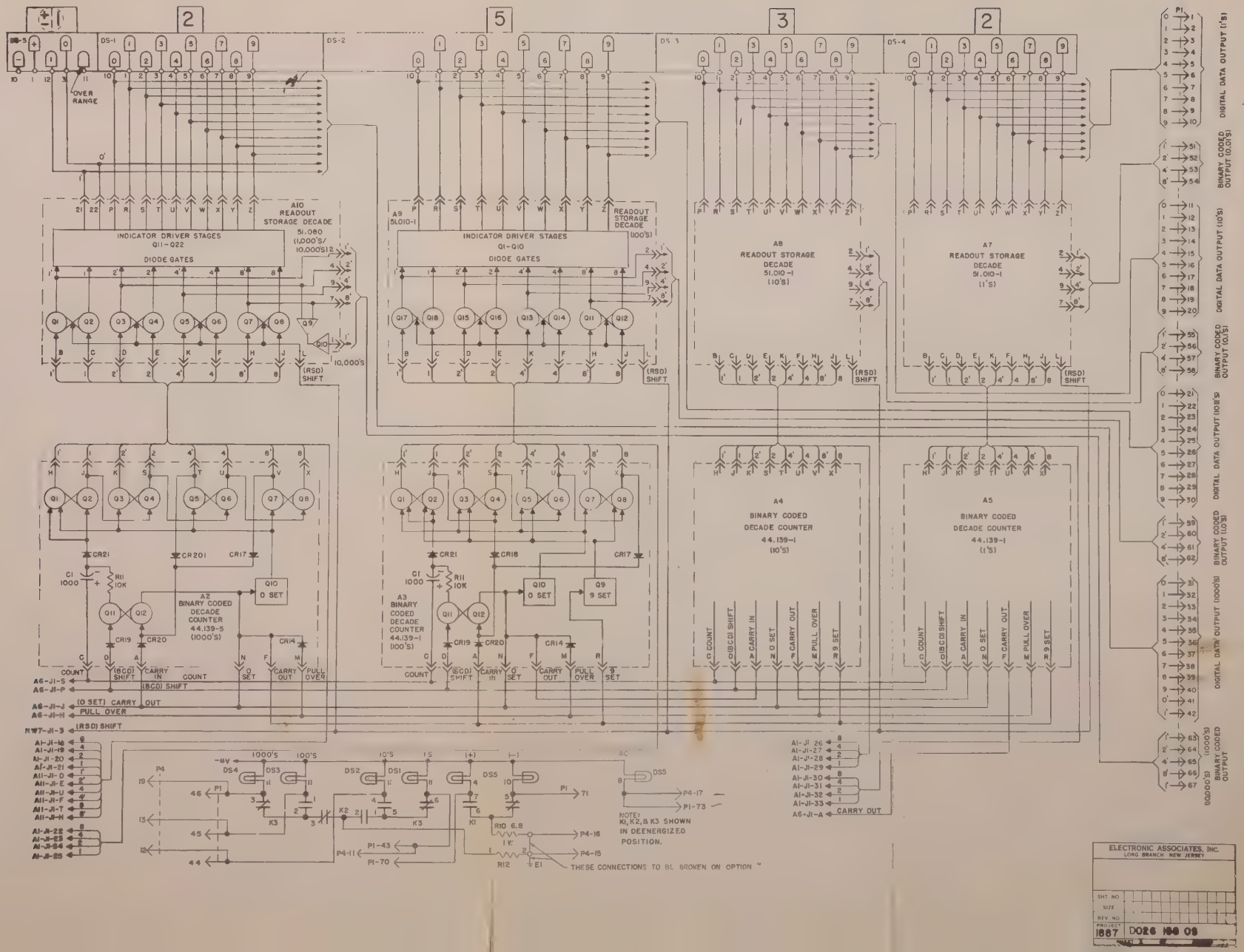
UNIT NUMBER	ASSEMBLY NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
26.158 1	026 158 1S	026 158 1P	SCHEM AS SHOWN WITH OPTION "A" (←A→), LESS J1, J3 & P3 CONNECTIONS	—	778
26.158	D026 158 0S	A026 158 0P	SCHEM AS SHOWN LESS OPTIONS	—	734

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY
SCHEMATIC
AUTO RANGE SWITCHING TDVM (SERIES 5001 TDVM)
SHT. NO. 2 OF 4 SHTS
SIZE D
REV. NO. J 2 5
PROJECT 1687
D026 158 0S

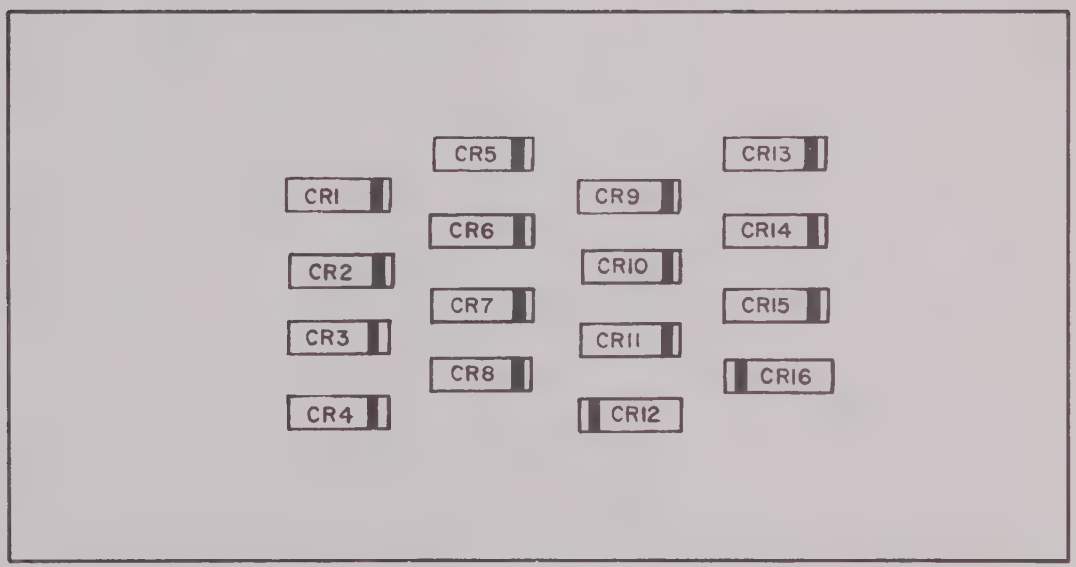


ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SHT. NO.	
SIZE	
REV. NO.	
PROJECT	1887 D026 158 OS
SHEET	OF



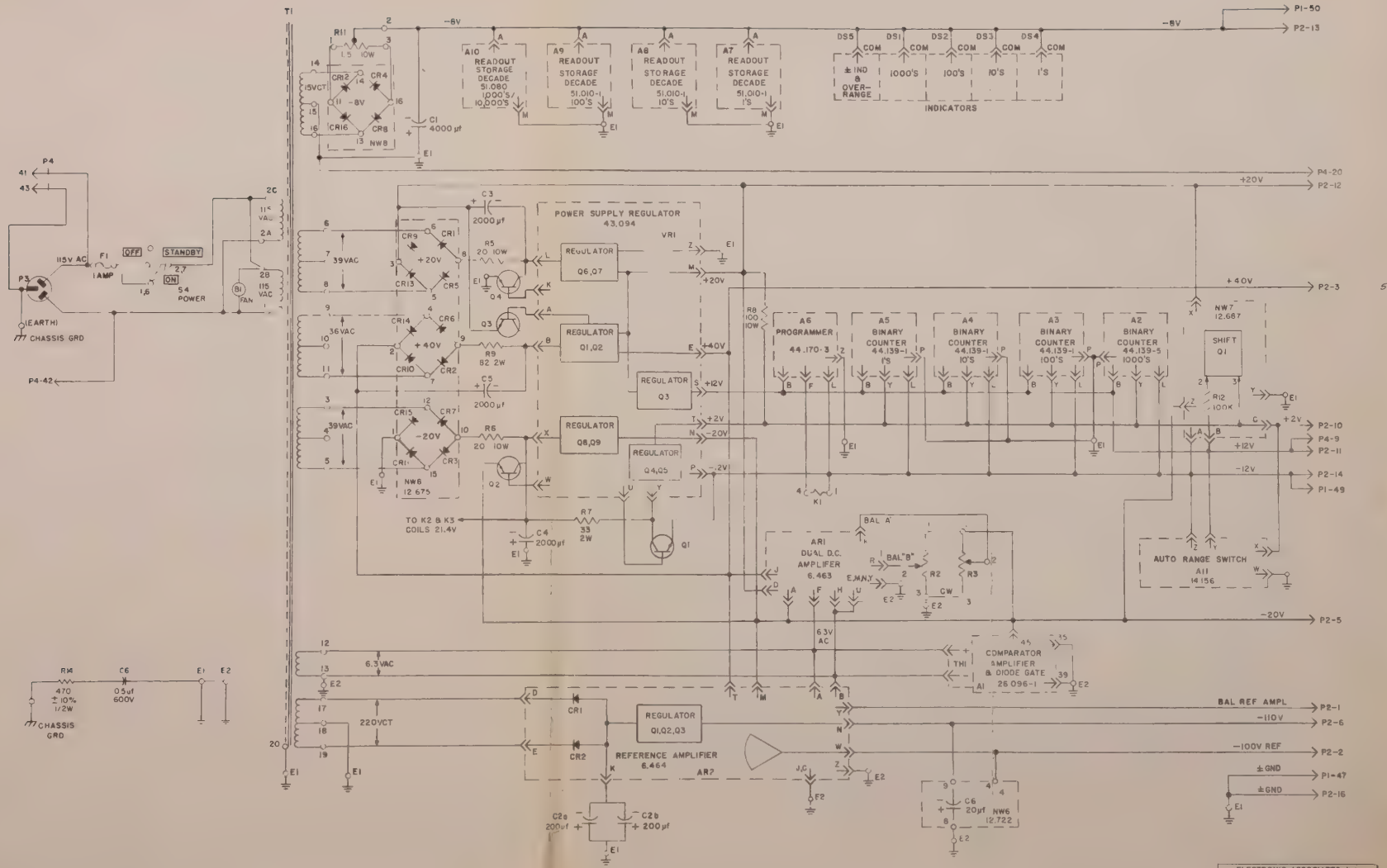
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

SHT NO
SIZE
REV NO
PROJECT 1887 D026 100 08



12.675 Rectifier Network (NW8)

NOTES.
1. E1 IS ±GRD.
E2 IS - GH QUALITY GRD.

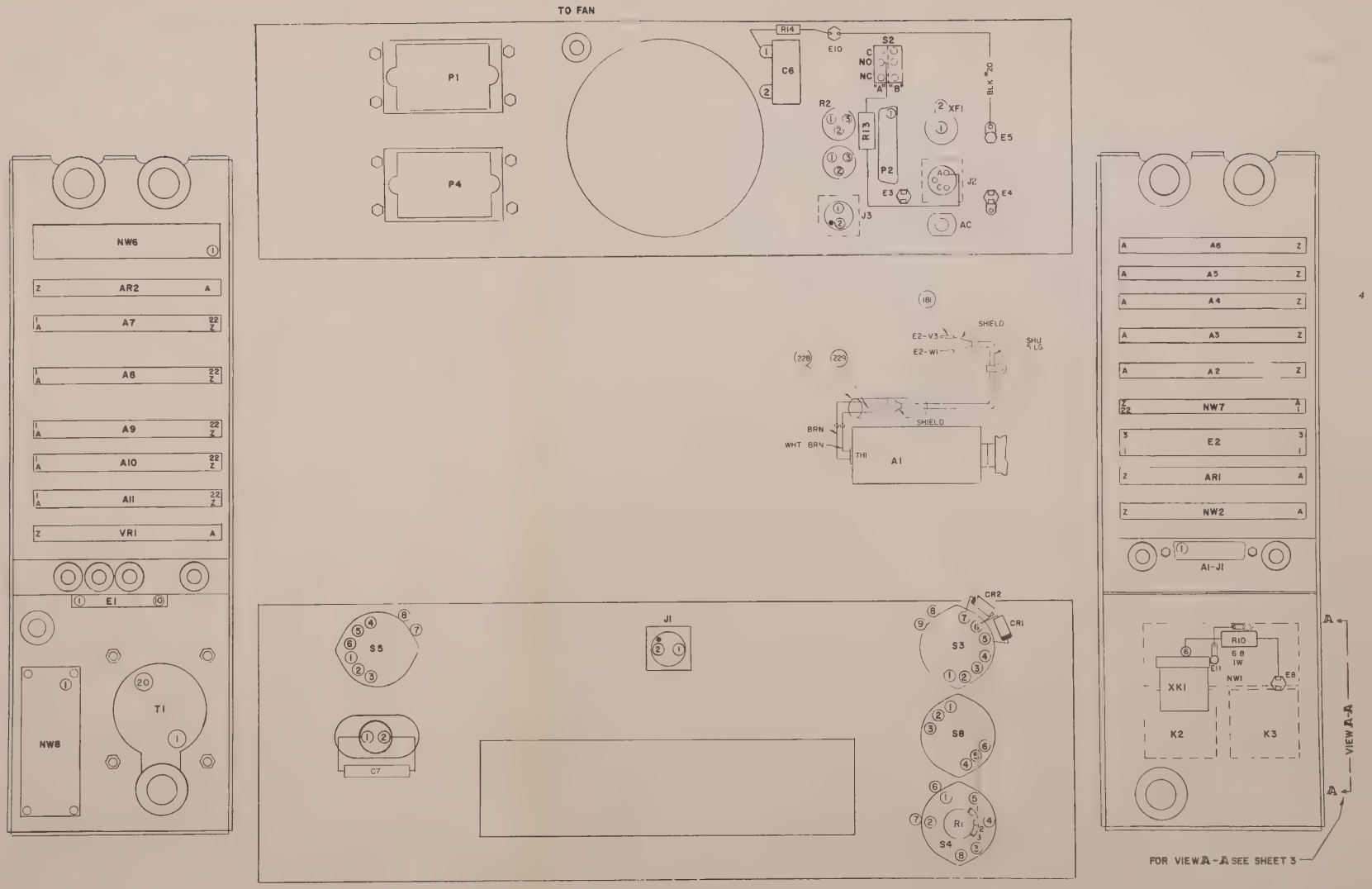


ELECTRONIC ASSOCIATES INC	LONG BRANCH, NEW JERSEY
SHT NO	
SIZE	
REV NO	
PROJECT	1887
	D026 158 0S
SHEET 4 OF SHEETS	

INDEX

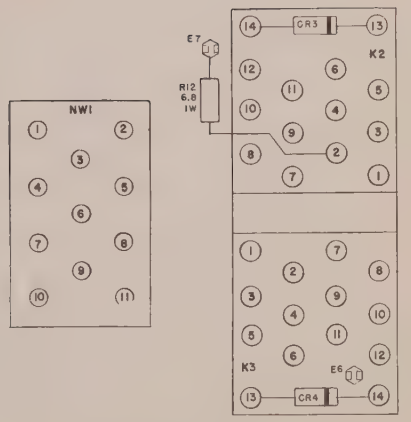
PAGE	REF DESIG	DESCRIPTION
2		Component Placement Keysheet
3		Component Placement Keysheet
4	AR1,AR2	Dual DC Ampl 6.463; Ref. Ampl 6.464
5	A1	Comp. & Diode Gate 26.096-1
6	A2;A3	BCD(1000's) 44.139-5; BCD (100's) 44.139-1
7	A4;A5	BCD(10's) 44.139-1; BCD(1's) 44.139-1
8	A6	Programmer 44.170-3
9	A7	RSD(1's) 51.010-1
10	A8	RSD(10's) 51.010-1
11	A9	RSD(100's) 51.010-1
12	A10	RSD(1000's/10,000's) 51.080
13	A11	Auto. Range Switch 14.156
14	DS1-DS3	Ind. Display
15	DS4,DS5	Ind Display
16	P1	Printer Connector
17	P1	Printer Connector
18	P2;P3	Test Point Conn.; Pwr Plug
19	P4	Programming Connector
20	NW7	Misc Network 12.687
21	NW1;NW6;	Input Res NW 12.725; Ref Ampl
22	NW8	NW 12.722; Rectifier NW 12.675
	NW2	Summing Res. NW 26.116
23	S2,S3,	Int-Ext Ref SW;
	S8	Range SW; Input "Z" SW.
24	S4,S5,	Pwr SW; Function SW;
	S7	Gnd SW; Trigger PB SW
25	E1; D2	± Gnd; HQ Gnd
26	E2-E10	HQ Gnd & Misc. Terms
27	T1; J1-J3	Pwr XFMR, Input & Ref Connectors
28	XK1; K2 & K3	Sign SW RY., Range SW RY'S.
29	R1-3;5,6, 8,11	Zero Set; Bal Pot "B", Balpot "A"; Pwr Supply Resistors; Lamp Supply Res.
30	XQ1-4; XF1	VR Transistors; Supply Fuse
31	C1-C6; B1;	Capacitors; Fan:
32	VR1	PS Regulator 43.094

ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
WIRING AUTO RANGE SWITCHING TDVM (SERIES 5001 - TDVM)	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 1 OF 33 SHEETS	

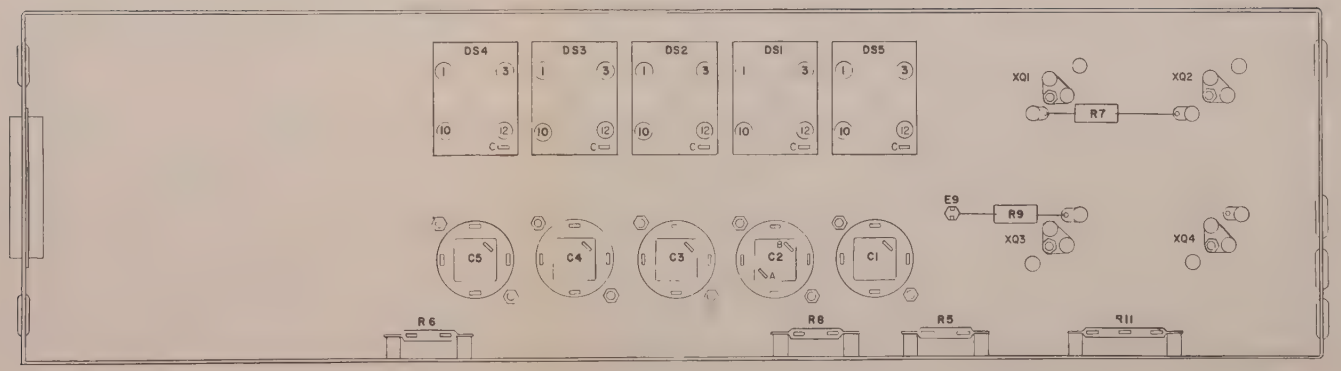


4

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH NEW JERSEY
SHT NO	
SIZE	
REV NO	
PROJECT	1887 D026 158 0W
SHEET	OF SHEETS



VIEW A-A



ELECTRONIC ASSOCIATES, INC. LONG BRANCH NEW JERSEY	
SHT NO	
SIZE	
REV NO	
PROJECT 1887	D 026 158 ON
SHEET	

AR1-J1 DUAL DC AMPLIFIER 6.463 and AR2-J1 REFERENCE AMPLIFIER 6.464

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484;18.482	AR1-J1-A	-20V Output	XQ2-3	WHT-VIO-RED 22	A1-J1-45	WHT-VIO-RED 22
18.484	A	-20V Output	NW7-J1-Z	WHT-VIO-RED 22		
——,18.483	B	Ampl Out "A"	NW7-J1-19	BUS	XK1-16	COAX 5
		COAX 5 Shield	E2-A1	BLK 20		
	C					
18.484	D	+20V Output	VR1-J1-M	WHT-RED-ORN 22	NW7-J1-X	WT-RED-ORN 22
18.483	E	± Grd "B" (DC Ampl)	E2-D1	BLK 16		
18.483	F	Vib Drive (6.3V AC)	T1-12	SHU 1		
	H	Vib Drive Ret.	T1-13	SHU 1 Shield		
18.484	J	+40V Output	C5 (+)	WHT-RED-RED 22		
18.482	K	Bal Pot "A"	R3-2	YEL		
18.482	L	Bal "A" (DC Ampl)	P2-18	YEL		
18.483	M	H.Q. Grd "B"(DC Ampl)	E2-B2	BLK-WHT 16		
18.483	N	H.Q. Grd "A" (DC Ampl)	E2-B1	BLK-WHT 16		
18.482	P	Bal "B" DC Ampl	P2-17	YEL		
18.482	R	Bal Pot "B"	R2-2	YEL		
18.483	S	Ampl Input "A"	NW7-J1-21	BUS		
	T	Key				
	U	Chassis Grd	AR1-J1-Y	BUS		
——,18.483	V	Ampl Input "B"	NW7-J1-10	BUS	NW1-2	COAX 3
		COAX 3 Shield	E2-H1	BLK 20		
	W					
	X					
18.483	Y	± Grd "A" (DC Ampl)	E2-D2	BLK 16	AR1-J1-U	BUS
	AR1-J1-Z	Ampl Out "B"	NW7-J1-9	BUS		
18.483	AR2-J1-A	6.3V AC (Vib Drive)	T1-12	SHU 2		
	B	Vib Drive Ret. (± Grd)	T1-13	SHU 2 Shield		
	C	± Grd	AR2-J1-J	BUS		
18.484	D	220V CT	T1-17	WHT 22		
18.484	E	220V CT	T1-19	WHT 22		
	F	Key				
	H	F.B. Resistor	NW6-3	BUS		
18.483	J	± Grd	E2-G2	BLK 16	AR2-J1-C	BUS
18.484	K	Filter	C2 (-)	WHT 22		
	L	Input	NW6-1	BUS		
18.484	M	-20V	VR1-J1-N	WHT-VIO-RED 22		
	N	-110V	NW6-7	BUS		
	P	Zener Input	NW6-2	BUS		
	R					
18.482	S	Zener Check 9.4V	P2-4	YEL		
18.484	T	+40V	VR1-J1-E	WHT-RED-RED 22	P2-3	WHT-RED-RED 22
	U					
	V					
	W	-100V Ref.	NW6-4	BUS		
	X					
18.482	Y	Bal.	P2-1	BLK		
18.483	AR2-J1-Z	H.Q. Grd	E2-C1	BLK-WHT 16		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W

SHEET 4 OF SHEETS

*Run as direct as possible in separate cable

A1-J1 COMPARATOR and DIODE GATE 26.096-1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A1-J1-1	Sum Junction	NW2-J1-E	COAX 6		
18.482	2	8000 In	V	RED		
	3	4000	U	ORN		
	4	2000	T	YEL		
	5	1000	S	GRN		
	6	800	R	BLU		
	7	400	P	VIO		
	8	200	N	GY		
	9	100	M	WHT		
	10	80	D	BLK		
	11	40	C	BRN		
	12	20	B	RED		
	13	10	A	WHT 20 *		
	14	8	Z	BLK 20 *		
	15	4	Y	BRN 20 *		
	16	2	X	RED 20 *		
	17	1 In	NW2-J1-W	ORN 20 *		
	18	8000 Gate	A2-J1-X	GY		
	19	4000	A2-J1-U	WHT		
	20	2000	A2-J1-S	BLK		
	21	1000	A2-J1-J	BRN		
	22	800	A3-J1-X	RED		
	23	400	A3-J1-U	ORN		
	24	200	A3-J1-S	YEL		
	25	100	A3-J1-J	GRN		
	26	80	A4-J1-X	BLU		
	27	40	A4-J1-U	VIO		
	28	20	A4-J1-S	GY		
	29	10	A5-J1-J	WHT		
	30	8	A5-J1-X	BLK		
	31	4	A4-J1-J	BRN		
	32	2	A5-J1-S	RED		
	33	1 Gate	A5-J1-J	ORN		
	34	Zero Set	R1-2	GRN		
	35	H.Q. Grd	E2-R2	BLK-WHT 20		
	36					
	37					
	38					
	39	± Grd	E2-R3	BLK 20		
	40					
	41					
	42					
	43					
	44					
	45	-20V	AR1-J1-A	WHT-VIO-RED 22		
	46					
	47	Comparator (-) Out	A6-J1-R	COAX 35		
	48					
18.482	49	Comparator (+) Out	A6-J1-N	COAX 36		
	A1-J1-50					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W

SHEET 5 OF SHEETS

A2-J1 BINARY CODED DECADE COUNTER 44.139-5 (1000's) A3-J1 BINARY CODED DECADE COUNTER 44.139-1 (100's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A2-J1-A	Carry In	A2-J1-N	BUS		
18.484	B	+12V	A3-J1-B	BUS	NW7-J1-B	WHT-RED-ORN 22
	C	Count	A3-J1-C	BUS		
	D	Shift	A3-J1-D	BUS		
	E					
18.482	F	Carry Out	A3-J1-A	YEL	A3-J1-R	YEL
	H	1'	A10-J1-B	ORN		
	J	1	A10-J1-C	BRN	A1-J1-21	BRN
18.482	K	2'	A10-J1-D	RED		
18.484	L	-12V	A3-J1-L	BUS	NW7-J1-A	WHT-VIO-ORN 22
	M	Pull Over	A3-J1-M	BUS	NW7-J1-4	BUS
	N	Zero Set	A3-J1-N	BUS	A2-J1-A	BUS
18.483	P	± Grd	A3-J1-P	BUS	C4 (+)	BLK 16
	R					
18.482	S	2	A10-J1-E	BLK	A1-J1-20	BLK
18.482	T	4'	A10-J1-K	GRN		
	U	4	A10-J1-F	WHT	A1-J1-19	WHT
	V	8'	A10-J1-H	YEL		
	W	Key				
18.482	X	8	A10-J1-J	GY	A1-J1-18	GY
18.484	Y	+2V	A3-J1-Y	BUS	NW7-J1-C	WHT-RED-BLU 22
	A2-J1-Z					
18.482	A3-J1-A	Carry In	A2-J1-F	YEL		
	B	+12V	A2-J1-B	BUS	A4-J1-B	BUS
	C	Count	A2-J1-C	BUS	A4-J1-C	BUS
	D	Shift	A2-J1-D	BUS	A4-J1-D	BUS
	E					
18.482	F	Carry Out	A4-J1-A	YEL		
	H	1'	A9-J1-B	BRN		
	J	1	A9-J1-C	GRN	A1-J1-25	GRN
18.482	K	2'	A9-J1-D	BLU		
	L	-12V	A2-J1-L	BUS	A4-J1-L	BUS
	M	Pull Over	A2-J1-M	BUS	A4-J1-M	BUS
	N	Zero Set	A2-J1-N	BUS	A4-J1-N	BUS
	P	± Grd	A2-J1-P	BUS	A4-J1-P	BUS
18.482	R	Nine Set	A4-J1-R	BUS	A2-J1-F	YEL
	S	2	A9-J1-E	YEL	A1-J1-24	YEL
	T	4'	A9-J1-K	GY		
	U	4	A9-J1-F	ORN	A1-J1-23	ORN
	V	8'	A9-J1-H	VIO		
	W	Key				
18.482	X	8	A9-J1-J	RED	A1-J1-22	RED
	Y	+2V	A2-J1-Y	BUS	A4-J1-Y	BUS
	A3-J1-Z					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 6 OF SHEETS	

A4-J1 BINARY CODED DECADE COUNTER 44.139-1 (10's) A5-J1 BINARY CODED DECADE COUNTER 44.139-1 (1's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1		COLUMN 2	
			DESTINATION	WIRE	DESTINATION	WIRE
18.482	A4-J1-A	Carry In	A3-J1-F	YEL	A11-J1-S	YEL
	B	+12V	A3-J1-B	BUS	A5-J1-B	BUS
	C	Count	A3-J1-C	BUS	A5-J1-C	BUS
	D	Shift	A3-J1-D	BUS	A5-J1-D	BUS
	E					
18.482	F	Carry Out	A5-J1-A	YEL		
	H	1'	A8-J1-B	BRN		
	J	1	A8-J1-C	WHT	A1-J1-29	WHT
18.482	K	2'	A8-J1-D	RED		
	L	-12V	A3-J1-L	BUS	A5-J1-L	BUS
	M	Pull Over	A3-J1-M	BUS	A5-J1-M	BUS
	N	Zero Set	A3-J1-N	BUS	A5-J1-N	BUS
	P	± Grd	A3-J1-P	BUS	A5-J1-P	BUS
	R	Nine Set	A3-J1-R	BUS	A5-J1-R	BUS
18.482	S	2	A8-J1-E	GY	A1-J1-28	GY
	T	4'	A8-J1-K	GRN		
	U	4	A8-J1-F	VIO	A1-J1-27	VIO
	V	8'	A8-J1-H	ORN		
	W	Key				
18.482	X	8	A8-J1-J	BLU	A1-J1-26	BLU
	Y	+2V	A3-J1-Y	BUS	A5-J1-Y	BUS
	A4-J1-Z					
18.482	A5-J1-A	Carry In	A4-J1-F	YEL		
	B	+12V	A4-J1-B	BUS	A6-J1-B	BUS
18.482	C	Count	A4-J1-C	BUS	A6-J1-S	YEL
18.482	D	Shift	A4-J1-D	BUS	A6-J1-P	YEL
	E					
18.482	F	Carry Out	A6-J1-A	YEL		
	H	1'	A7-J1-B	VIO		
	J	1	A7-J1-C	ORN	A1-J1-33	ORN
18.482	K	2'	A7-J1-D	BLU		
	L	-12V	A4-J1-L	BUS	A6-J1-L	BUS
18.482	M	Pull Over	A4-J1-M	BUS	A6-J1-H	YEL
18.482	N	Zero Set	A4-J1-N	BUS	A6-J1-J	YEL
	P	± Grd	A4-J1-P	BUS		
	R	Nine Set	A4-J1-R	BUS		
18.482	S	2	A7-J1-E	RED	A1-J1-32	RED
	T	4'	A7-J1-K	YEL		
	U	4	A7-J1-F	BRN	A1-J1-31	BRN
	V	8'	A7-J1-H	GRN		
	W	Key				
18.482	X	8	A7-J1-J	BLK	A1-J1-30	BLK
18.484	Y	+2V	A4-J1-Y	BUS	P2-10	WHT-RED-BLU 22
	A5-J1-Z					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 7 OF SHEETS	

A6-J1 PROGRAMMER 44.170-3

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	A6-J1-A	Carry In	A5-J1-F	YEL	P2-15	YEL
18.484	B	+12V	A5-J1-B	SD-BUS	P2-11	WHT-RED-ORN 22
	C	Key				
18.482	D	Hold	S5-5	YEL		
	E	Ind Clear	NW7-J1-7	YEL	P2-7	YEL
	F	Relay Coil	XK1-4	BLU	P4-24	BLU 20
	H	Pull Over	A5-J1-M	YEL	A11-J1-P	YEL
	J	Carry Out	A5-J1-N	YEL	A11-J1-R	YEL
18.482	K	-1 Digit	NW2-J1-F	YEL		
18.484	L	-12V	A5-J1-L	SD-BUS	VR1-J1-P	WHT-VIO-ORN 22
18.482	M	Relay Arm	XK1-9	YEL		
	N	Comparator (+)	A1-J1-49	COAX 36		
	P	Shift	A5-J1-D	YEL		
	R	Comparator (-)	A1-J1-47	COAX 35		
	S	Count	A5-J1-C	YEL		
	T					
	U	Cycle Command	S5-3	YEL		
	V	(+) Relay	XK1-10	YEL		
	W	(+) Ind.	NW7-J1-1	YEL		
	X	(-) Ind.	NW7-J1-2	YEL		
18.482	Y	(-) Relay	XK1-8	YEL		
18.483	A6-J1-Z	± Grd	E1-A5	BLK 16		COAX 35 SHIELD
	Z	± Grd		COAX 36 SHIELD		

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SHEET 8 OF SHEETS	

A7-J1 READOUT STORAGE DECADE 51.010-1 (1's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	A7-J1-A	-8V	A8-J1-A	BUS	P1-50	WHT-VIO-BLU 20
18.482	B	1' Input(Binary Coded)	A5-J1-H	VIO		
	C	1	A5-J1-J	ORN		
	D	2'	A5-J1-K	BLU		
	E	2	A5-J1-S	RED		
	F	4	A5-J1-U	BRN		
	H	8'	A5-J1-V	GRN		
	J	8	A5-J1-X	BLK		
18.482	K	4' Input(Binary Coded)	A5-J1-T	YEL		
	L	Shift	A8-J1-L	BUS		
	M	± Grd	A8-J1-M	BUS		
	N	Key				
18.481	P	0 Output(Digital)	DS4-10	BLK	P1-1	BLK
	R	1 Output	DS4-1	BRN	P1-2	BRN
	S	2 Output	DS4-2	RED	P1-3	RED
	T	3 Output	DS4-3	ORN	P1-4	ORN
	U	4 Output	DS4-4	YEL	P1-5	YEL
	V	5 Output	DS4-5	GRN	P1-6	GRN
	W	6 Output	DS4-6	BLU	P1-7	BLU
	X	7 Output	DS4-7	VIO	P1-8	VIO
	Y	8 Output	DS4-8	GY	P1-9	GY
18.481	A7-J1-Z	9 Output (Digital)	DS4-9	WHT	P1-10	WHT
	A7-J1-1					
18.481	2	1'(Binary Coded Outputs)	P1-51	WHT-RED		
	3					
	4	2'	P1-52	WHT-BRN		
	5					
	6					
	7	8'	P1-54	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs)	P1-53	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	15					
	17					
	18					
	19					
	20					
	21					
	A7-J1-22					

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SHEET 9 OF SHEETS	

A8-J1 READOUT STORAGE DECADE 51.010-1 (10's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A8-J1-A	-8V	A7-J1-A	BUS	A9-J1-A	BUS
18.482	B	1' Input(Binary Coded)	A4-J1-H	BRN		
	C	1	A4-J1-J	WHT		
	D	2'	A4-J1-K	RED		
	E	2	A4-J1-S	GY		
	F	4	A4-J1-U	VIO		
	H	8'	A4-J1-V	ORN		
	J	8	A4-J1-X	BLU		
18.482	K	4' Input (Binary Coded)	A4-J1-T	GRN		
	L	Shift	A7-J1-L	BUS	A9-J1-L	BUS
18.483	M	± Grd	T1-15	BLK 16	A7-J1-M	BUS
	N	Key				
18.481	P	0 Output(Digital)	DS3-10	BLK	P1-11	BLK
	R	1 Output	DS3-1	BRN	P1-12	BRN
	S	2 Output	DS3-2	RED	P1-13	RED
	T	3 Output	DS3-3	ORN	P1-14	ORN
	U	4 Output	DS3-4	YEL	P1-15	YEL
	V	5 Output	DS3-5	GRN	P1-16	GRN
	W	6 Output	DS3-6	BLU	P1-17	BLU
	X	7 Output	DS3-7	VIO	P1-18	VIO
	Y	8 Output	DS3-8	GY	P1-19	GY
18.481	A8-J1-Z	9 Output (Digital)	DS3-9	WHT	P1-20	WHT
	A8-J1-1					
18.481	2	1'(Binary Coded Outputs)	P1-55	WHT-RED		
	3					
	4	2'	P1-56	WHT-BRN		
	5					
	6					
	7	8'	P1-58	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs)	P1-57	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	A8-J1-22					

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SHEET 10 OF SHEETS

A9-J1 READOUT STORAGE DECADE 51.010-1 (100's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A9-J1-A	-8V	A8-J1-A	BUS	A10-J1-A	BUS
18.482	B	1' Input(Binary Coded)	A3-J1-H	BRN		
	C	1	A3-J1-J	GRN		
	D	2'	A3-J1-K	BLU		
	E	2	A3-J1-S	YEL		
	F	4	A3-J1-U	ORN		
	H	8'	A3-J1-V	VIO		
	J	8	A3-J1-X	RED		
18.482	K	4' Input(Binary Coded)	A3-J1-T	GY		
	L	Shift	A8-J1-L	BUS	A10-J1-L	BUS
	M	± Grd	A10-J1-M	BUS		
	N	Key				
18.481	P	0 Output (Digital)	DS2-10	BLK	P1-21	BLK
	R	1 Output	DS2-1	BRN	P1-22	BRN
	S	2 Output	DS2-2	RED	P1-23	RED
	T	3 Output	DS2-3	ORN	P1-24	ORN
	U	4 Output	DS2-4	YEL	P1-25	YEL
	V	5 Output	DS2-5	GRN	P1-26	GRN
	W	6 Output	DS2-6	BLU	P1-27	BLU
	X	7 Output	DS2-7	VIO	P1-28	VIO
	Y	8 Output	DS2-8	GY	P1-29	GY
18.481	A9-J1-Z	9 Output (Digital)	DS2-9	WHT	P1-30	WHT
	A9-J1-1					
18.481	2	1'(Binary Coded Outputs)	P1-59	WHT-RED		
	3					
	4	2'	P1-60	WHT-BRN		
	5					
	6					
	7	8'	P1-62	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs)	P1-61	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	A9-J1-22					

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SHEET 11 OF SHEETS

A10-J1 READOUT STORAGE DECADE 51.080 (1000's)/(10,000's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	A10-J1-A	-8V	A9-J1-A	BUS	R11-2	WHT-VIO-BLU 20
18.482	B	1 Input (Binary Coded)	A2-J1-H	ORN	A11-J1-D	ORN
	C	1	A2-J1-J	BRN		
	D	2'	A2-J1-K	RED	A11-J1-E	RED
	E	2	A2-J1-S	BLK		
	F	4	A2-J1-U	WHT	A11-J1-U	WHT
	H	8'	A2-J1-V	YEL	A11-J1-H	YEL
	J	8	A2-J1-X	GY	A11-J1-T	GY
	K	4' Input (Binary Coded)	A2-J1-T	GRN	A11-J1-F	GRN
18.482	L	Shift	A9-J1-L	BUS	NW7-J1-3	YEL
18.483	M	± Grd	A9-J1-M	BUS	A11-J1-W	BLK 16
	N	Key				
18.481	P	0 Output (Digital)	DS1-10	BLK	P1-31	BLK
	R	1 Output	DS1-1	BRN	P1-32	BRN
	S	2 Output	DS1-2	RED	P1-33	RED
	T	3 Output	DS1-3	ORN	P1-34	ORN
	U	4 Output	DS1-4	YEL	P1-35	YEL
	V	5 Output	DS1-5	GRN	P1-36	GRN
	W	6 Output	DS1-6	BLU	P1-37	BLU
	X	7 Output	DS1-7	VIO	P1-38	VIO
	Y	8 Output	DS1-8	GY	P1-39	GY
18.481	A10-J1-Z	9 Output (Digital)	DS1-9	WHT	P1-40	WHT
18.481	A10-J1-1	1' (10,000's)	P1-67	YEL		
	2	1' (Binary Coded Outputs)	P1-63	WHT-RED		
	3					
	4	2'	P1-64	WHT-BRN		
	5					
	6					
	7	8'	P1-66	WHT-VIO		
	8					
	9	4' (Binary Coded Output)	P1-65	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21	1' (Digital Output)	DS5-12	WHT-VIO	P1-42	WHT-VIO
18.481	A10-J1-22	0' (Digital Output)	DS5-3	GR	P1-41	GR

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SHEET 12 OF SHEETS

A11-J1 AUTOMATIC RANGE SWITCH 14.156

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	A11-J1-A	A.R.S Com (K2)	P4-2	RED		
18.481	B	Auto	P4-4	YEL	S3-3	YEL
	C	100's Mult (Down Range)	A11-J1-S	BUS		
18.482	D	1000 Gate	A10-J1-B	ORN		
	E	2000 Gate	A10-J1-D	RED		
	F	4000 Gate	A10-J1-K	GRN		
18.482	H	8000 Gate (Down Range)	A10-J1-H	YEL		
18.481	J	Relay Drive (K2)	K2-14	BLU	P4-21	BLU 20
	K	Manual Protects	P4-5	GRN	S3-7	GRN
	L	K3 Relay Drive	P4-7	BLU	S3-5	BLU
18.481	M	A.R.S Com (K3)	P4-1	BRN		
	N	Key				
18.482	P	Pull Over	A6-J1-H	YEL		
	R	Sign Check Inhibit	A6-J1-J	YEL		
	S	100's Mult Out (Up Rge)	A4-J1-A	YEL	A11-J1-C	BUS
	T	8000 Gate (Up Range)	A10-J1-J	GY		
18.482	U	4000 Gate (Up Range)	A10-J1-F	WHT		
18.481	V	Over Range Ind.	DS5-11	WHT-BRN	P4-10	WHT-BRN
18.483	W	± Grd	T1-15	BLK-16	A10-J1-M	BLK 16
18.484	X	+ 2V	VR1-J1-T	WHT-RED-BLU 22		
	Y	+ 12V	VR1-J1-S	WHT-RED-ORN 22		
18.484	A11-J1-Z	- 12V	VR1-J1-P	WHT-VIO-ORN 22	P1-49	WHT-VIO-ORN 22
	A11-J1-1					
	2					
	3					
	4					
	5					
	6					
	7					
18.482	8	ARS Com (K2)	NW7-J1-5	RED		
	9					
18.481	10	AC Mono Cap	P4-25	COAX 33		
	11					
	12					
	13					
18.481	14	AC Mono Cap	P4-26	COAX 34		
18.481	15	AC Mono Cap	P4-28	COAX 36		
18.481	16	AC Mono Cap	P4-27	COAX 35		
	17					
	18					
	19					
	20					
	21					
	A11-J1-22					

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SHEET 13 OF SHEETS

DS1 - DS3 (INDICATOR DISPLAY UNITS)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	DS1-1	1(Digital Output)	A10-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10Digital Output)	A10-J1-P	BLK		
18.481	11	Dec. Ind (1V)	K3-6	WHT-BRN	P1-43	WHT-BRN
	12					
	DS1-COM	Ind Com	DS5-COM	BUS 20	DS2-COM	BUS 20
18.481	DS2-1	1(Digital Output)	A9-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10(Digital Output)	A9-J1-P	BLK		
18.481	11	Dec. Ind (10V)	K3-4	WHT-RED	P1-44	WHT-RED
	12					
	DS2-COM	Ind Com	DS1-COM	BUS 20	DS3-COM	BUS 20
18.481	DS3-1	1(Digital Output)	A8-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10(Digital Output)	A8-J1-P	BLK		
18.481	11	Dec. Ind (100V)	K3-1	WHT-VIO	P1-45	WHT-VIO
	12					
	DS3-COM	Ind Com	DS2-COM	BUS 20	DS4-COM	BUS 20

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DS4 - DS5 (INDICATOR DISPLAY UNITS)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	DS4-1	1(Digital Output)	A7-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	0 (Digital Output)	A7-J1-P	BLK		
18.481	11	Dec. Ind (1000V)	K3-3	WHT-GY	P1-46	WHT-GY
	12					
	DS4-COM	Ind Com	DS3-COM	BUS 20		
18.482;18.481	DS5-1	(+) Ind	XK1-7	BRN	P1-70	BRN
	2					
18.481	3	0'	A10-J1-22	ORN		
	4					
	5					
18.481	6	Spare	P1-78	BLU		
	7					
18.481	8	AC Ind Grd	P4-17	BLK 22		
	9					
18.482;18.481	10	(-) Ind	XK1-5	BLK	P1-71	BLK
18.481	11	Over Range Ind	A11-J1-V	WHT-BRN		
18.481	12	1' 10,000's	A10-J1-21	WHT-VIO		
	DS5-COM	Ind Common	DS1-COM	BUS 20	C1 (-)	BUS 20

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P1 PRINTER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P1-1	0 Digital Output	A7-J1-P	BLK		
	2	1	R	BRN		
	3	2	S	RED		
	4	3	T	ORN		
	5	4	U	YEL		
	6	5	V	GRN		
	7	6	W	BLU		
	8	7	X	VIO		
	9	8	Y	GY		
	10	9	A7-J1-Z	WHT		
	11	0	A8-J1-P	BLK		
	12	1	R	BRN		
	13	2	S	RED		
	14	3	T	ORN		
	15	4	U	YEL		
	16	5	V	GRN		
	17	6	W	BLU		
	18	7	X	VIO		
	19	8	Y	GY		
	20	9	A8-J1-Z	WHT		
	21	0	A9-J1-P	BLK		
	22	1	R	BRN		
	23	2	S	RED		
	24	3	T	ORN		
	25	4	U	YEL		
	26	5	V	GRN		
	27	6	W	BLU		
	28	7	X	VIO		
	29	8	Y	GY		
	30	9	A9-J1-Z	WHT		
	31	0	A10-J1-P	BLK		
	32	1	R	BRN		
	33	2	S	RED		
	34	3	T	ORN		
	35	4	U	YEL		
	36	5	V	GRN		
	37	6	W	BLU		
	38	7	X	VIO		
	39	8	Y	GY		
18.481	P1-40	9 (Digital Output)	A10-J1-Z	WHT		

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SHEET 16 OF SHEETS

P1 CONT'D PRINTER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P1-41	0' Digital Out (1,000's)	A10-J1-22	GR		
	42	1' Digital Out (1,000's)	A10-J1-21	WHT-VIO		
	43	Dec. Ind (1V)	DS1-11	WHT-BRN	P4-11	WHT-BRN
	44	Dec. Ind (10V)	DS2-11	WHT-RED	P4-12	WHT-RED
	45	Dec. Ind (100V)	DS3-11	WHT-VIO	P4-13	WHT-VIO
	46	Dec. Ind (1000V)	DS4-11	WHT-GY	P4-19	WHT-GRY
	47	± Grd	E1-A3	BLK 16	P2-16	BLK 20
18.481	48	Carry In	P2-15	YEL		
18.484	49	-12V	A11-J1-Z	WHT-VIO-ORN 22	P2-14	WHT-VIO-ORN 22
18.484	50	-8V	A7-J1-A	WHT-VIO-BLU 20	P2-13	WHT-VIO-BLU 20
18.481	51	1'(1's)(BinaryCodeOutp)	A7-J1-2	WHT-RED		
	52	2'(1's)	A7-J1-4	WHT-BRN		
	53	4'(1's)	A7-J1-9	WHT-GY		
	54	8'(1's)	A7-J1-7	WHT-VIO		
	55	1'(10's)	A8-J1-2	WHT-RED		
	56	2'(10's)	A8-J1-4	WHT-BRN		
	57	4'(10's)	A8-J1-9	WHT-GY		
	58	8'(10's)	A8-J1-7	WHT-VIO		
	59	1'(100's)	A9-J1-2	WHT-RED		
	60	2'(100's)	A9-J1-4	WHT-BRN		
	61	4'(100's)	A9-J1-9	WHT-GY		
	62	8'(100's)	A9-J1-7	WHT-VIO		
	63	1'(1000's)	A10-J1-2	WHT-RED		
	64	2'(1000's)	A10-J1-4	WHT-BRN		
	65	4'(1000's)	A10-J1-9	WHT-GY		
	66	8'(1000's)	A10-J1-7	WHT-VIO		
	67	1'(10,000's) (BinCodeOtp)	A10-J1-1	YEL		
	68	Hold	NW7-J1-8	YEL		
	69	Ind Clear	P2-7	YEL		
	70	(+) Ind	DS5-1	BRN		
	71	(-) Ind	DS5-10	BLK		
	72	Over Range	P4-10	WHT-BRN		
18.481	73	AC Ind Grd	P4-17	BLK 22		
	74					
	75					
	76					
	77					
18.481	P1-78	Spare	DS5-6	BLU		

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SHEET 17 OF SHEETS

P2 TEST POINTS			P3 AC INPUT(LINE)			
			COLUMN 1		COLUMN 2	
HARN/CABLE	TERMINAL	FUNCTION	DESTINATION	WIRE	DESTINATION	WIRE
18.482	P2-1	Bal Ref Ampl	AR2-J1-Y	BLK		
18.484	2	-100V Ref	S2a-C	WHT-VIO 22		
18.484	3	+40V	AR2-J1-T	WHT-RED-RED 22		
18.482	4	9.4V Zen Chk	AR2-J1-S	YEL		
18.484	5	-20V	R2-1	WHT-VIO-RED 22		
18.484	6	-110V	MW6-7	WHT 22		
18.482;18,481	7	Ind Clear	A6-J1-E	YEL	P1-69	YEL
18.483	8	Ampl Out "A"	MW7-J1-19	COAX 12		
18.483	9	Ampl Out "B"	MW7-J1-9	COAX 13		
18.484	10	+2V	A5-J1-Y	WHT-RED-BLU 22		
18.484	11	+12V	P4-9	WHT-RED-ORN 22	A6-J1-B	WHT-RED-ORN 22
↕	12	+20V	VR1-J1-M	WHT-RED-ORN 22		
	13	-8V	P1-50	WHT-VIO-BLU 20		
18.484	14	-12V	P1-49	WHT-VIO-ORN 22		
18.481;18,482	15	Carry In	P1-48	YEL	A6-J1-A	YEL
18.481	16	+ Grd	P1-47	BLK 20		
18.482	17	Bal " B" (DC Ampl)	AR1-J1-P	YEL		
18.482	18	Bal "A" (DC Ampl)	AR1-J1-L	YEL		
	19					
	20					
	21					
	22					
	23					
	24					
	P2-25					

*Metric Color Leads of Power Cord:
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Com)

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 18 OF SHEETS	

P4 PROGRAMMING

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P4-1	A.R.S. Com (K3)	A11-J1-M	BRN		
	2	A.R.S. Com (K2)	A11-J1-A	RED		
	3	Remote	S3-2	ORN		
	4	Auto	A11-J1-B	YEL		
	5	1V Range	A11-J1-K	GRN		
	6	10V Range	S3-6	VIO		
18.481	7	100V Range	A11-J1-L	BLU		
18.482	8	Ext Cycle Com	S5-1	GY		
18.484	9	+12V	P2-11	WHT-RED-ORN 22	VR1-J1-S	WHT-RED-ORN 22
18.481	10	Over Range	A11-J1-V	WHT-BRN	P1-72	WHT-BRN
18.481	11	Dec Ind (1V)	P1-43	WHT-BRN		
18.481	12	Dec Ind (10V)	P1-44	WHT-RED		
18.481	13	Dec Ind (100V)	P1-45	WHT-VIO		
	14					
18.482	15	Dec Point Grd	E-7	BLK 22		BUS
18.482	16	± Ind Grd	E-8	BLK 22		BUS
18.481	17	AC Ind Grd	DS5-8	BLK 22	P1-73	BLK 22
	18					
18.481	19	Dec Ind (1000V)	P1-46	WHT-GRY 22		
18.484	20	-8V Grd	T1-15	BLK 20		
18.481	21	Range Card Auto	A11-J1-J	BLU 20		
	22					
	23					
18.482	24	Sign Relay Lock	A6-J1-F	BLU 20		
18.481	25	AC Mono Cap	A11-J1-10	COAX 33	3rd COAX Shields on BUS between P4-44 & 45	
	26		-14	34		
	27		-16	35		
18.481	28	AC Mono Cap	A11-J1-15	36		
18.483, —	29	Input	S4-5	COAX 38	J3-1	COAX 27
			P2-24	COAX 27		
18.483, —	30	Conn. Grd	R1-3	COAX 38 Shield	J3-2	COAX 27 Shield
			P2-25	COAX 27 Shield		
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					
18.481	41	115V AC Hot	XF1-1	BLK 16		
	42	115V AC Com.	E4	WHT 16		
	43	Earth Grd	E4-Lug	GRN 16		
	44	Functional Grd	E1-B1	BLK 16	•	BUS
18.481	P4-45	Functional Grd (COAX Shields)			•	BUS

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
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PROJECT 1887	B 026 158 0W
SHEET 19 OF SHEETS	

NW7-J1 NETWORK CARD (MISC.) 12.687

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	NW7-J1-1	(+) Ind	A6- J1-W	YEL		
	2	(-) Ind	A6-J1-X	YEL		
18.482	3	Shift (RSD)	A10-J1-L	YEL		
	4	Pull Over	A2-J1-M	BUS		
18.482	5	A.R.S. Com(K2)	A11-J1-8	RED		
	6					
18.482	7	Ind Clear	A6-J1-E	YEL		
18.482	8	Hold	P1-68	YEL		
18.483	9	Ampl Out "B"	AR1-J1-Z	BUS	P2-9	COAX 13
18.483	9	Ampl Out "B"	NW1-4	COAX 1		
		COAX 1 Shield	E2-P2	BLK 20		
		COAX 13 Shield	E2-P3	BLK 20		
	10	Ampl Inp "B"	AR1-J1-V	BUS		
	11					
18.483	12	Input 1V	S8-6	COAX 14		
		Coax 14 Shield	E2-N2	BLK 20		
	13	Key				
18.483	14	Input 10V	S8-3	COAX 15		
		Coax 15 Shield	E2-N3	BLK 20		
18.483	15	Unloading 10V	S8-2	COAX 16		
		Coax 16 Shield	E2-G3	BLK 20		
18.483	16	Unloading (1) 1V	NW1-11	COAX 17		
		Coax 17 Shield	E2-F3	BLK 20		
	17	Summing Junction	NW2-J1-E	COAX 18		
18.483	18	Full Scale Adj	XK1-12	COAX 19		
		Coax 19 Shield	E2-E3	BLK 20		
—— ,18.483	19	Ampl Out "A"	AR1-J1-B	BUS	P2-8	COAX 12
		Coax 12 Shield	E2-C3	BLK 20		
18.483	20	Input (Sum. Resistor)	NW2-J1-H	COAX 20		
		Coax 20 Shield	E2- E3	BLK 20		
	21	Ampl Inp "A"	AR1-J1-S	BUS		
	22					
18.484	A	-12V	A2-J1-L	WHT-VIO-ORN 22		
	B	+12	A2-J1-B	WHT-RED-ORN 22		
18.484	C	+2V	A2-J1-Y	WHT-RED-BLU 22	R8-1	WHT-RED-BLU 22
	D					
	E					
	F					
	H					
	J					
	K					
	L					
	M					
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
18.484	X	+20V	AR-J1-D	WHT-RED-ORN 22		
18.483	Y	± Grd	E2-H3	BLK 16		
18.484	NW7-J1-Z	-20V	AR1-J1-A	WHT-VIO-RED 22		

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1887 B 026 158 0W
SHEET 20 OF SHEETS

NW1 INPUT RESISTOR NETWORK, 12. 725

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW1-1	1000V/100V Input	K2-12	BUS 20		
18.483	2	Ampl Input "B"	AR1-J1-V	COAX 3		
	3	10V/1V Input	K2-10	BUS 20		
——,18.483	4	Output "B"	K3-11	BUS 20	NW7-J1-9	COAX #1
	5	1000V/10V F.B.	K2-8	BUS 20		
	6	1V Unl'd Input	K3-9	BUS 20		
__18.483	7	1V Unl'd Output	NW1-10	BUS 20	S8-5	COAX 31
	8	10V Unl'd Input	K3-7	BUS 20		
	9	10V Unl'd Output	S8-2	COAX 30		
	10	1V Unl'd Input	NW1-7	BUS 20		
18.483	NW1-11	1V Unl'd Output	NW7-J1-16	COAX 17		

NW6 REF AMPL NETWORK 12.722

	NW6-1	Input	AR2-J1-L	BUS		
	2	Zener Input	AR2-J1-P	BUS		
	3	F.B. Resistor	AR2-J1-H	BUS		
18.484	4	-100V Ref	AR2-J1-W	BUS	S2a-C	WHT-VIO 22
	5	Zero Set	R1-1	WHT-VIO 22		
18.484	6	-100V Ref (Ext)	S2b-C	WHT-VIO 22		
18.484	7	Filter(-110)	AR2-J1-N	BUS	P2-6	WHT 22
18.483	NW6-8	Filter Grd (-110)	T1-18	BLK 16		

NW8 RECTIFIER NETWORK 12.675

18.483	NW8-1	± Grd (-20V)	E1-A4	BLK 16		
18.484	2	+40V (Reg)	C5 (+)	WHT-RED-RED 22		
	3	+20V (Reg)	XQ3-3	WHT-RED-ORN		
	4	36V AC (+40)	T1-9	WHT-RED-RED		
	5	39V AC (+20)	T1-8	WHT-RED-ORN		
	6	39V AC (+20)	T1-6	WHT-RED-ORN		
	7	36V AC (+40)	T1-11	WHT-RED-RED		
	8	+20V (Unreg)	R5-1	WHT-RED-ORN		
	9	+40V (Unreg)	E9	WHT-RED-RED		
	10	-20V (Unreg)	R6-1	WHT-VIO-RED 22		
	11	-8V	R11-1	WHT-VIO-BLU 20		
	12	39V AC (-20)	T1-3	WHT-VIO-RED 22		
	13	15V CT(-8)	T1-16	WHT-VIO-BLU 20		
	14	15V CT(-8)	T1-14	WHT-VIO-BLU 20		
	15	39V AC (-20)	T1-5	WHT-VIO-RED 22		
18.484	NW8-16	-8V	R11-3	WHT-VIO-BLU 20		

ELECTRONIC ASSOCIATES, INC.
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SHT. NO.
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PROJECT 1887 B 026 158 0W
SHEET 21 OF SHEETS

NW2-J1 SUMMING RESISTOR NETWORK 26.116

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	NW2-J1-A	10	A1-J1-13	WHT 20 *		
	B	20	A1-J1-12	RED		
	C	40	A1-J1-11	BRN		
18.482	D	80	A1-J1-10	BLK		
	E	Summing Junc.	A1-J1-1	COAX 6 *	NW7-J1-17	COAX 18 *
18.482	F	-1 Digit	A6-J1-K	YEL		
18.483	H	Input	NW7-J1-20	COAX 20		
	J	Key				
18.484	K	-100V Ref	S2a-NC	WHT-VIO 22		
18.483	L	± Grd	E2- G1	BLK 16		
18.482	M	100	A1-J1-9	WHT		
	N	200	8	GY		
	P	400	7	VIO		
	R	800	6	BLU		
	S	1000	5	GRN		
	T	2000	4	YEL		
	U	4000	3	ORN		
	V	8000	2	RED		
	W	1	17	ORN 20 *		
	X	2	16	RED 20 *		
	Y	4	15	BRN 20 *		
18.482	NW2-J1-Z	8	A1-J1-14	BLK 20 *		
	*	COAX #6 Shield	SEE NOTE 1			
	*	COAX #18 Shield				

All Shields to be tied together with (1) Lead going to NW2-J1-L.

*Run as direct as possible in separate cable

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SHT. NO.	
SIZE	
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PROJECT 1887	B 026 158 0W
SHEET 22 OF SHEETS	

82 INTERNAL/EXTERNAL REFERENCE

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
		S2 INTERNAL /EXTERNAL REFERENCE				
18.484	S2a-C	-100V Ref	NW6-4	WHT-VIO 22	P2-2	WHT-VIO 22
18.484	NC	-100V Ref	NW2-J1-K	WHT-VIO 22	S2b-C	BUS
	S2a-NO	HQ Grd	R13	Sew Sht 2		
18.484	S2b-C	-100V Ref	S2a-NC	BUS	NW6-6	WHT-VIO 22
	NC					
	S2b-NO	Ext Ref	J2-A	WHT-VIO 22		
		S3 RANGE				
18.483	S3-1	± Grd	C4 (+)	BLK 16		
18.481	2	Remote	P4-3	ORN		
	3	Auto	A11-J1-B	YEL		
	4					
	5	100V	K3-14	BLU	A11-J1-L	BLU
	6	10V	P4-6	VIO		
18.481	7	1V	A11-J1-K	GRN		
	8					
	S3-9					
		S8 INPUT Z				
	S8-1					
——,18.483	2	Unl'd 10V	NW1-9	COAX 30	NW7-J1-15	COAX 16
18.483	3	Input 10V	NW7-J1-14	COAX 15		
	4					
	5	Unl'd 1V	NW1-7	COAX 31		
18.483	S8-6	Input 1V	NW7-J1-12	COAX 14		

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W

SHEET 23 OF SHEETS

S4 POWER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	S4-1	115V AC (On)			XF1-2	BLK (T #2)
	2	115V AC (Off)			E3	RED (T #2)
	3	Input	K 2-11	COAX 24		
		Coax 24 Shield	R1-3	BLK 20		
	4	Input	K2-5	COAX 25		
		Coax 25 Shield	R1-3	BLK 20		
——,18.483	5	Input	J1-1	COAX 26	P4-29	COAX 38
		Coax 26 Shield	R1-3	BLK 20		
		Coax 27 Shield	R1-3	BLK 20		
	6	115V AC (On)				
	-7	115V AC (Off)				
	S4-8	Grd	R1-3	BUS		
		S5 FUNCTION				
18.482	S5-1	Ext (Cycle Com.)	P4-8	GY		
	2	Man Push	S7-1	BUS		
18.482	3	Cycle Com.	A6-J1-U	YEL		
18.484	4	Int (+12V)	VR1-J1-S	WHT-RED-ORN 22	S7-2	BUS
18.482	5	Hold	A6-J1-D	YEL		
18.483	6	± Grd	C4 (+)	BLK 16		
	7					
	S5-8					
		S7 - TRIGGER				
	S7-1	Manual Push	S5-2	BUS 20		
	S7-2	+12V	S5-4	BUS 20		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
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SHEET 24 OF SHEETS

E1, ± GROUND E2, H.Q. GRD

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.483	E1-A1	(-20V)	C4 (+)	BLK 16		
18.483	2	(Power Supply)	VR1-J1-Z			
18.481	3	(Output)	P1-47			
18.483	4	(Rect. Network)	NW8-1			
	5	(Prog)	A6-J1-Z			
	6	(Inter. Block)	E2-F2			
	7	(C.T. -220)	T1-18			
	8	(Transformer)	T1-20			
	9	(+20V)	XQ4-3			
18.483	-A10	(6.3V AC Ret)	T1-13			
18.481	B1	Function Grd	P4-44			
18.483	2	(C.T. -8V)	T1-15			
18.483	E1-B3	± Grd	E11	BLK 16		
		E2 H.Q. GROUND				
	E2-A1	AR1-J1-B	Coax 5 Shield	BLK 20		
18.483	A2		C6-2	BLK 20		
	A3					
	B1	"A" (DC Ampl)	AR1-J1-N	BLK-WHT 16		
	B2	"B" (DC Ampl)	AR1-J1-M	BLK-WHT 16		
	B3	NW7-J1-20	Coax 20 Shield	BLK 20		
	C1	Ref Ampl	AR2-J1-Z	BLK-WHT-16		
	C2	± Grd (Junct)	E5	BLK 16		
	C3	NW7-J1-19	Coax 12 Shield	BLK 20		
	D1	"B" (DC Ampl)	AR1-J1-E	BLK 16		
	D2	"A" (DC Ampl)	AR1-J1-Y	BLK 16		
	D3					
	E1	Zero Set	R1-3	BLK 16		
	E2	Input "B" and FB	E6	BLK 16		
	E3	NW7-J1-18	Coax 19 Shield	BLK 20		
	F1	Bal POT "A"	R3-3	BLK 16		
	F2	Inter. Block	E1-A6	BLK 16		
	F3	NW7-J1-16	Coax 17 Shield	BLK 20		
	G1	Sum. Res.	NW2-J1-L	BLK 16		
18.483	G2	Ref. Amp	AR2-J1-J	BLK 16		
	G3	NW7-J1-15	Coax 16 Shield	BLK 20		
	H1	AR1-J1-V	Coax 3 Shield	BLK 20		
	H2	Jumper	E2-R1	BLK 16		
18.483	H3	± Grd	NW7-J1-Y	BLK 16		
	J1					
	J2					
	J3					
	K1					
	K2					
	K3					
	L1					
	L2					
	L3					
	M1					
	M2					
	M3					
	N1				E2-P2	BLK 16
	N2	NW7-J1-12	Coax 14 Shield	BLK 20		
	N3	NW7-J1-14	Coax 15 Shield	BLK 20	E2-R2	BLK 16
	P1					
	P2	NW7-J1-9	Coax 15 Shield	BLK 20	E2-N1	BLK 16
	P3	NW7-J1-9	Coax 13 Shield	BLK 20		
	R1				E2-H2	BLK 16
18.482	R2	H.Q.Grd (Comp)	A1-J1-35	BLK-WHT 20	E2-N3	BLK 16
18.482	E2-R3	± Grd (Comp)	A1-J1-39	BLK 20		

NOTES:

1. All leads connected to E1 and E2 Connectors are to be terminated into Taper Pins.

USE: Item 161 for #20 AWG Leads.
Item 183 for #16 AWG Leads.

ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
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SHEET 25 OF SHEETS	

E2 H.Q. GROUND (Cont'd) E3,4 - Etc.

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	E2-S1					
	S2					
	S3					
	T1					
	T2					
	T3					
	U1					
	U2					
	U3					
	V1					
	V2					
	V3	6.3V AC (TH1)(-)(Ret)	T1-13	SHU 3 Shield	A1-TH1 (-)	(See Sht. 2)
18.483	W1	6.3V AC (TH1)(+)(Hot)	T1-12	SHU 3	A1-TH1 (+)	
	W2					
	E2-W3					
	E3	115V AC (Hot)	S4-2	RED (T #2)	T1-2C	RED (T #1)
	E4	115V AC (Com)	T1-1	BLK (T #1)	P3-9 *	
18.481	E4	115V AC (Com)	P4-42	WHT 16		
	E4 Lug	115V AC Earth Grd	T #1	Shield	T #2	Shield
—;18.481	E4 Lug	115V AC Earth Grd	P3-5 *		P4-43	GRN 16
18.483	E5	± Grd	E2-C2	BLK 16		
	E5	± Grd	J2-A	BLK 20		
	E5					
	E5 Lug	± Grd (Chassis)	E10	BLK 20		
18.483	E6	± Grd (Input)	E2-E2	BLK 16	K3-11	COAX 29 Shield
18.482	E7	-8V Grd	P4-15	BLK 22		
18.482	E8	± Grd (± Ind)	P4-16	BLK 22		
18.484	E9	+40V (Output)	NW8-9	WHT-RED-RED 22		
	E10	± Grd (Chassis)	E5 Lug	BLK 20		
18.483	E11	± Grd	E1-B3	BLK 16		

* = RETMA Color Leads of Power Cord
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Common)

ELECTRONIC ASSOCIATES, INC.	
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SHEET 26 OF SHEETS	

T1 - TRANSFORMER, POWER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	T1-1	115V AC Com	E4	BLK (T#1)	B1-2	BLK (T#3)
	-1	115V AC Com	T1-2A	BUS #20		
	2A	115V AC	T1-1	BUS #20		
	2B	115V AC			B1-1	RED (T#3)
	2B	115V AC	T1-2C	BUS #20		
	2C	115V	T1-2B	BUS #20	E3	RED (T#1)
18.484	3	39V AC (-20)	NW8-12	WHT-VIO-RED 22		
	4					
	5	39V AC (-20)	NW8-15	WHT-VIO-RED 22		
	6	39V AC (+20)	NW8-6	WHT-RED-ORN 22		
	7					
	8	39V AC (+20)	NW8-5	WHT-RED-ORN 22		
	9	36V AC (+40)	NW8-4	WHT-RED-RED 22		
	10					
18.484	11	36V AC (+40)	NW8-7	WHT-RED-RED 22		
18.483	12	6.3V AC (Vib Drive)	AR1-J1-F	SHU 1	AR2-J1-A	SHU 2
18.483	12	6.3V AC (Vib Drive)	E2-W1	SHU 3		
	13	Vib Drive Ret	AR1-J1-H	SHU 1 Shield	AR2-J1-B	SHU 2 Shield
18.483	13	Vib Drive Ret	E2-V3	SHU 3 Shield	E1-A10	BLK 16
18.484	14	15V AC (-8)	NW8-14	WHT-VIO-BLU 20		
18.483	15	C.T. Grd (-8)	C1 (+)	BLK 16	A11-J1-W	BLK 16
18.483	15	C.T. Grd (-8)	E1-B2	BLK 16	A8-J1-M	BLK 16
18.484	15	C.T.Grd (-8)	P4-20	BLK 20		
18.484	16	15V AC (-8)	NW8-13	WHT-VIO-BLU 20		
18.484	17	220V AC (-110)	AR2-J1-D	WHT 22		
18.483	18	C. T. Grd (-110)	C2 (+)	BLK 16	NW6-8	BLK 16
18.483	18	C. T. Grd (-110)	E1-A7	BLK 16		
18.484	19	220V AC (-110)	AR2-J1-E	WHT		
18.483	T1-20	Transformer Grd	E1-A8	BLK 16		
	J2-C	Ext. Ref	S2b-NO	WHT-VIO 20		
	J2-A	Conn. Grd	E5	BLK 20	R13	See Sht 2

ELECTRONIC ASSOCIATES, INC.	
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SIZE	
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PROJECT 1887	B 026 158 0W
SHEET 27 OF SHEETS	

XK1, SIGN SWITCHING

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	XK1-1	Relay Coil (-12V)	XQ1-3	WHT-VIO-ORN 22		
	2					
	3					
18.482	4	Relay Coil	A6-J1-F	BLU		
	5	NC (-Ind)	DS5-10	BLK		
	6					
	7	NO (+ Ind)	DS5-1	RED		
	8	NC (-Relay)	A6-J1-Y	YEL		
	9	Arm, Relay	A6-J1-M	YEL		
18.482	10	NO (+Relay)	A6-J1-V	YEL		
	11	Ampl Out "B"	XK1-14	BUS		
18.483	12	Full Scale Adj	XK1-15	BUS	NW7-J1-18	COAX 19
	13	Ampl Out "A"	XK1-16	BUS		
	14	Ampl Out "B"	XK1-11	BUS	XK3-11	COAX 29
	15	Arm (F.S. Adj)	XK1-12	BUS		
18.483	XK1-16	Ampl Out "A"	XK1-13	BUS	AR1-J1-B	COAX 5
		K2 AUTO RANGE SWITCHING				
	K2-1	NO (Arm)	K3-5	BUS 20		
	2					
	3	NC (Arm)	K3-2	BUS 20		
	4	NO (Arm)	K3-8	BUS 20		
	5	Arm (Input)	S4-4	COAX 25		
	6					
	7	NO	K3-10	BUS 20		
	8	Arm (Input "B")	NW1-5	BUS 20		
	9	NC	K3-12	BUS 20		
	10	10V/1V Input	NW1-3	BUS 20		
	11	Input	S4-3	COAX 24		
	12	NC (1000V/100V Inp)	NW1-1	BUS 20		
18.484	13	Relay Coil (-24V)	K3-13	BUS 20	C4 (-)	WHT-VIO-RED 22
18.481	K2-14	Relay Drive	A11-J1-J	BLU		
		K3 AUTO RANGE SWITCHING				
18.481	K3-1	Dec Ind (100V)	DS3-11	WHT-VIO		
	2	Arm (NC)	K2-3	BUS 20		
18.481	3	Dec.Ind (1000V)	DS4-11	WHT-GY		
18.481	4	Dec. Ind (10V)	DS2-11	WHT-RED		
	5	Arm (NO)	K2-1	BUS 20		
18.481	6	Dec. Ind (1V)	DS1-11	WHT-BRN		
	7	10V Unl'd Input	NW1-8	BUS 20		
	8	Arm (NO)	K2-4	BUS 20		
	9	1V Unl'd Input	NW1-6	BUS 20		
	10	NO	K2-7	BUS 20		
	11	Output "B"	NW1-4	BUS 20	XK1-14	COAX 29
		COAX 29 Shield	E6			
	12	NC	K2-9	BUS 20		
	13	Relay Coil (-24V)	K2-13	BUS 20		
18.483	K3-14	Relay Drive	S3-5	BLU		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1887 B 026 158 0W
SHEET 28 OF SHEETS

R1, 2, 3, 5, 6, 8 and R11

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	R1-1	Zero Set	NW6-5	WHT-VIO 22		
18.482	2	Zero Set	A1-J1-34	GRN		
18.483	R1-3	± Grd	E2-E1	BLK 20	J1-2	COAX 26 Shield
	R1-3	± Grd	S4-8	BUS	P4-30	COAX 38 Shield
		COAX 24 Shield	R1-3	BLK-20		
		COAX 25 Shield	R1-3	BLK-20		
18.484	R2-1	-20V Output	R3-1	BUS	P2-5	WHT-VIO-RED 22
18.482	2	Bal Pot "B"	AR1-J1-R	YEL		
	R2-3	± Grd	R3-3	BUS		
18.484	R3-1	-20V Output	VR1-J1-N	WHT-VIO-RED 22	R2-1	BUS
18.482	2	Bal Pot "A"	AR1-J1-K	YEL		
18.483	R3-3	± Grd	R2-3	BUS	E2-F1	BLK 16
18.484	R5-1	+20V	NW8-8	WHT-RED-ORN 22		
18.484	R5-2	+20V	C3 (-)	WHT-RED-ORN 22	XQ4-1	WHT-RED-ORN 22
18.484	R6-1	-20V	NW8-10	WHT-VIO-RED 22		
18.484	R6-2	-20V	C4 (-)	BUS 20	XQ2-1	WHT-VIO-RED 22
18.484	R8-1	+2V Output	VR1-J1-T	WHT-RED-BLU 22	NW7-J1-C	WHT-RED-BLU 22
18.484	R8-2	+20V Output	C3 (+)	WHT-RED-ORN 22	XQ3-3	WHT-RED-ORN 22
18.484	R11-1	Drop. Resis. (-8V)	NW8-11	WHT-VIO-BLU 20		
↕	R11-2	Drop. Resis. (-8V)	C1 (-)	WHT-VIO-BLU 20	A10-J1-A	WHT-VIO-BLU 20
18.484	R11-3	Drop. Resis. (-8V)	NW8-16	WHT-VIO-BLU 20		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W

SHEET 29 OF SHEETS

	XQ1,2,3,4	XF1				
			COLUMN 1		COLUMN 2	
HARN/CABLE	TERMINAL	FUNCTION	DESTINATION	WIRE	DESTINATION	WIRE
18.484	XQ1-1	-20V (Collector)	VR1-J1-Y	WHT-VIO-RED 22		
	XQ1-2	-12V (Base)	VR1-J1-U	WHT-VIO-ORN 22		
18.484	XQ1-3	-12V Output	VR1-J1-P	WHT-VIO-ORN 22	XK1-1	WHT-VIO-ORN 22
18.484	XQ2-1	Collector (-20)	R6-2	WHT-VIO-RED 22	VR1-J1-X	WTH-VIO-RED 22
	XQ2-2	Base (-20)	VR1-J1-W	WHT-VIO-RED 22		
18.484	XQ2-3	-20V Output	VR1-J1-N	WHT-VIO-RED 22	AR1-J1-A	WHT-VIO-RED 22
18.484	XQ3-1	Collector (+40)	C5 (-)	WHT-RED-RED 22	VR1-J1-B	WHT-RED-RED 22
	XQ3-2	Base (+40)	VR1-J1-A	WHT-RED-RED 22		
	XQ3-3	+20V Output	R8-2	WHT-RED-ORN 22	VR1-J1-M	WHT-RED-ORN 22
18.484	XQ3-3	+20V Output	NW8-3	WHT-RED-ORN 22		
18.484	XQ4-1	Collector (+20)	R5-2	WHT-RED-ORN 22	VR1-J1-L	WHT-RED-ORN 22
18.484	XQ4-2	Base (+20)	VR1-J1-K	WHT-RED-ORN 22		
18.483	XQ4-3	Emitter Grd	E1-A9	BLK 16		
—,18.481	XF1-1	115V AC (Hot)	P3-0	* (0) BLK	P4-41	BLK 16
	XF1-2	115V AC	S4-1	BLK (T#2)		

* = RETMA Color Leads of Power Cord:
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Common)

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 30 OF SHEETS	

C1, 2, 3, 4, 5, C6 B1 and TH1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.483	C1 (+)	Filter Grd	T1-15	BLK 16		
18.484	C1 (-)	-8V Filter	R11-2	WHT-VIO-BLU 20	DS5-C	BUS 20
	C2 A (+)	Filter Grd				
18.483	C2 B (+)	Filter Grd		Bus #20	T1-18	BLK 16
18.484	C2 (-)	-110V Filter	AR2-J1-K	WHT 22		
18.484	C3 (+)	+20V Output	R8-2	WHT-RED-ORN 22		
18.484	C3 (-)	+20V Filter	R5-2	WHT-RED-ORN 22		
18.483	C4 (+)	± Grd	S3-1	BLK 16	E1-A1	BLK 16
18.483	C4 (+)	± Grd	A2-J1-P	BLK 16	S5-6	BLK 16
18.484	C4 (-)	-20V Filter	K2-13	WHT-VIO-RED 22	R6-2	BUS 20
18.484	C5 (+)	+40V Output	NW8-2	WHT-RED-RED 22	AR1-J1-J	WHT-RED-RED
18.484	C5 (+)	+40V Output	VR1-J1 E	WHT-RED-RED 22		
18.484	C5 (-)	+40V Filter	XQ3-1	WHT-RED-RED 22		
	C6-1	± Grd (Out)	See Sht. #2			
18.483	C6-2	± Grd (In)	E2-A2	BLK 20		
	B1-1	117V AC	T1-1	BLK (T #3)		
	B1-2	117V AC Com	T1-2B	RED (T #3)		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W

SHEET 31 OF SHEETS

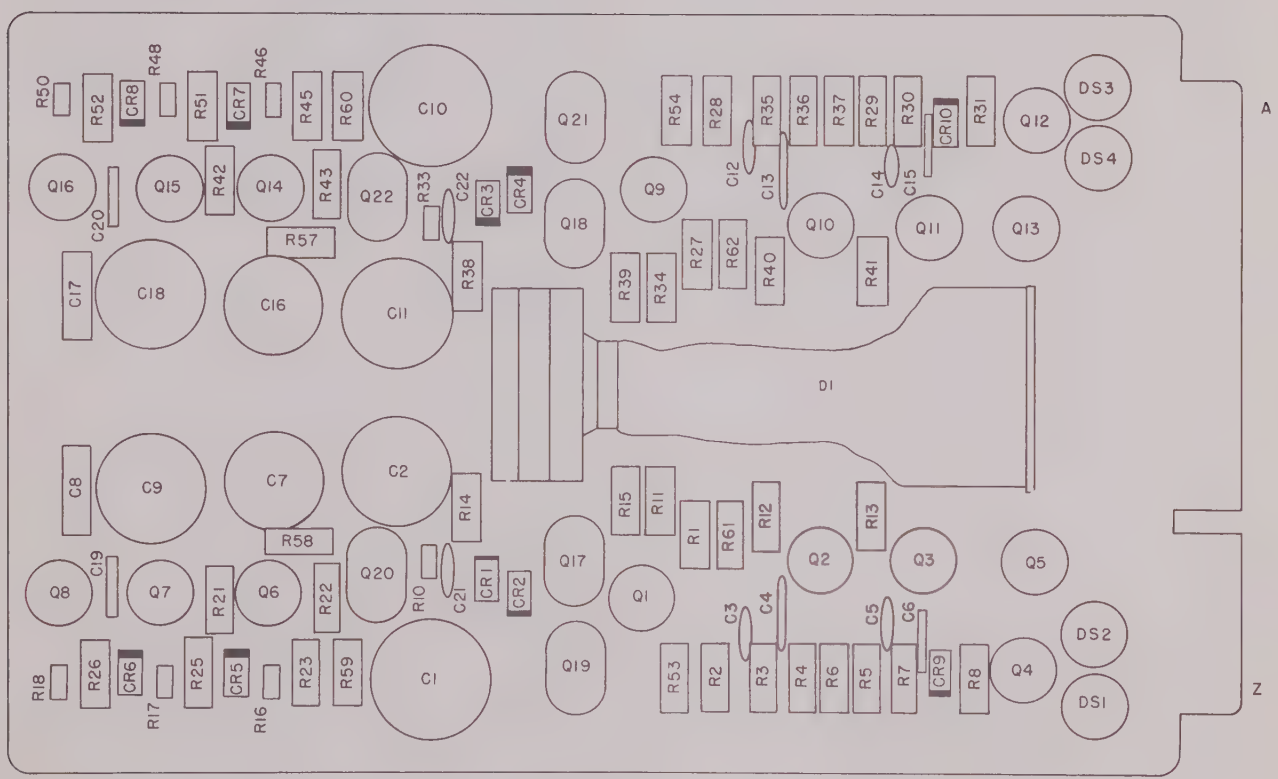
VR1-J1 POWER SUPPLY REGULATOR 43.094

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	VR1-J1-A	+40V Input	XQ3-2	WHT-RED-RED 22		
	B	Filter (+40V)	XQ3-1	WHT-RED-RED		
	C					
	D					
	E	+40V Output	C5 (+)	WHT-RED-RED	AR2-J1-T	WHT-RED-RED 22
	F					
	H					
	J					
	K	+20V Input	XQ4-2	WHT-RED-ORN		
	L	+20V Filter	XQ4-1	WHT-RED-ORN		
	M	+20V Output	P2-12	WHT-RED-ORN	AR1-J1-D	WHT-RED-ORN
	M	+20V Output	XQ3-3	WHT-RED-ORN		
	N	-20V Output	XQ2-3	WHT-VIO-RED	AR2-J1-M	WHT-VIO-RED
	N	-20V Output	R3-1	WHT-VIO-RED		
	P	-12V	XQ1-3	WHT-VIO-ORN	A6-J1-L	WHT-VIO-ORN
	P	-12V	A11-J1-Z	WHT-VIO-ORN		
	R	Key				
	S	+12V Output	A11-J1-Y	WHT-RED-ORN	P4-9	WHT-RED-ORN
	S	+12V Output	S5-4	WHT-RED-ORN		
	T	+2V Output	A11-J1-X	WHT-RED-BLU	R8-1	WHT-RED-BLU 22
	U	Base PW 2 Xistor	XQ1-2	WHT-VIO-ORN		
	V					
	W	-20V Input	XQ2-2	WHT-VIO-RED		
	X	-20V Filter	XQ2-1	WHT-VIO-RED		
18.484	Y	-20V Filter	XQ1-1	WHT-VIO-RED 22		
18.483	VR1-J1-Z	± Grd	E1-A2	BLK 16		

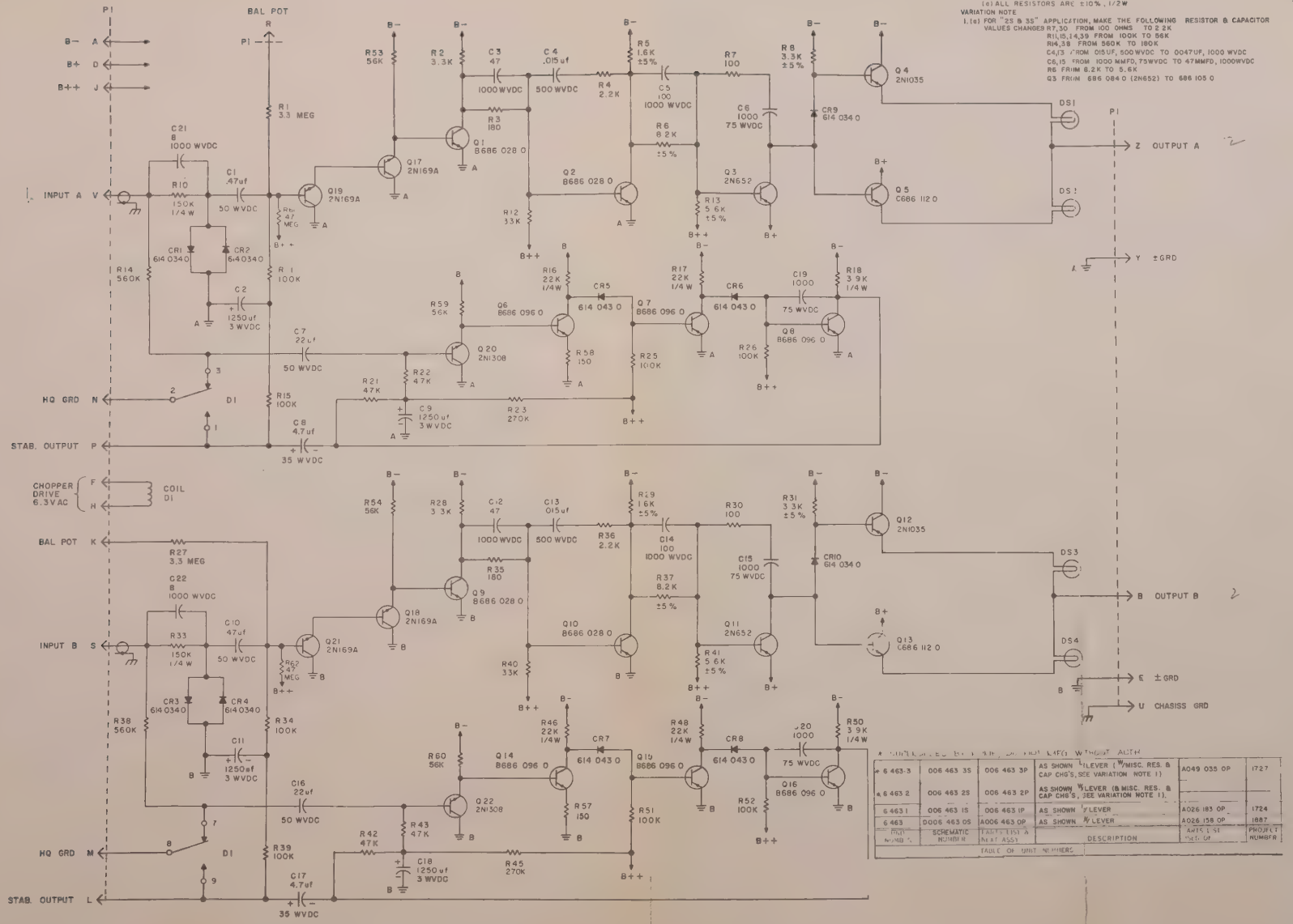
1

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	B 026 158 0W
SHEET 32 OF SHEETS	



6.463 Dual DC Amplifier (AR1)



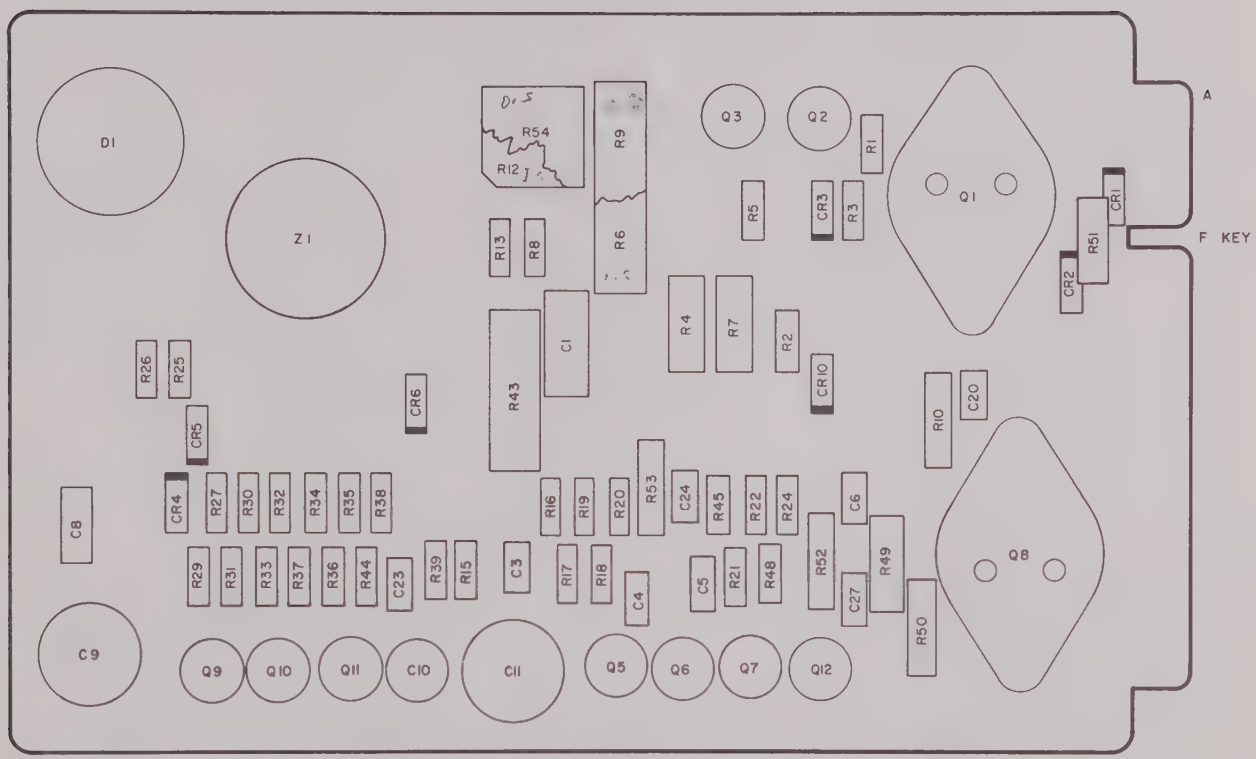
PROJECT NUMBER	SCHEMATIC NUMBER	PARTS LIST & ASSY	DESCRIPTION	PARTS LIST SHEET NO	PROJECT NUMBER
6 463-3	006 463 3S	006 463 3P	AS SHOWN W/LEVER (W/MISC. RES. & CAP CHG'S, SEE VARIATION NOTE 1)	A049 035 OP	1727
6 463 2	006 463 2S	006 463 2P	AS SHOWN W/LEVER (W/MISC. RES. & CAP CHG'S, SEE VARIATION NOTE 1).		
6 463 1	006 463 1S	006 463 1P	AS SHOWN W/LEVER	A026 183 OP	1724
6 463	0006 463 0S	A006 463 0P	AS SHOWN W/LEVER	A026 158 OP	1887

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

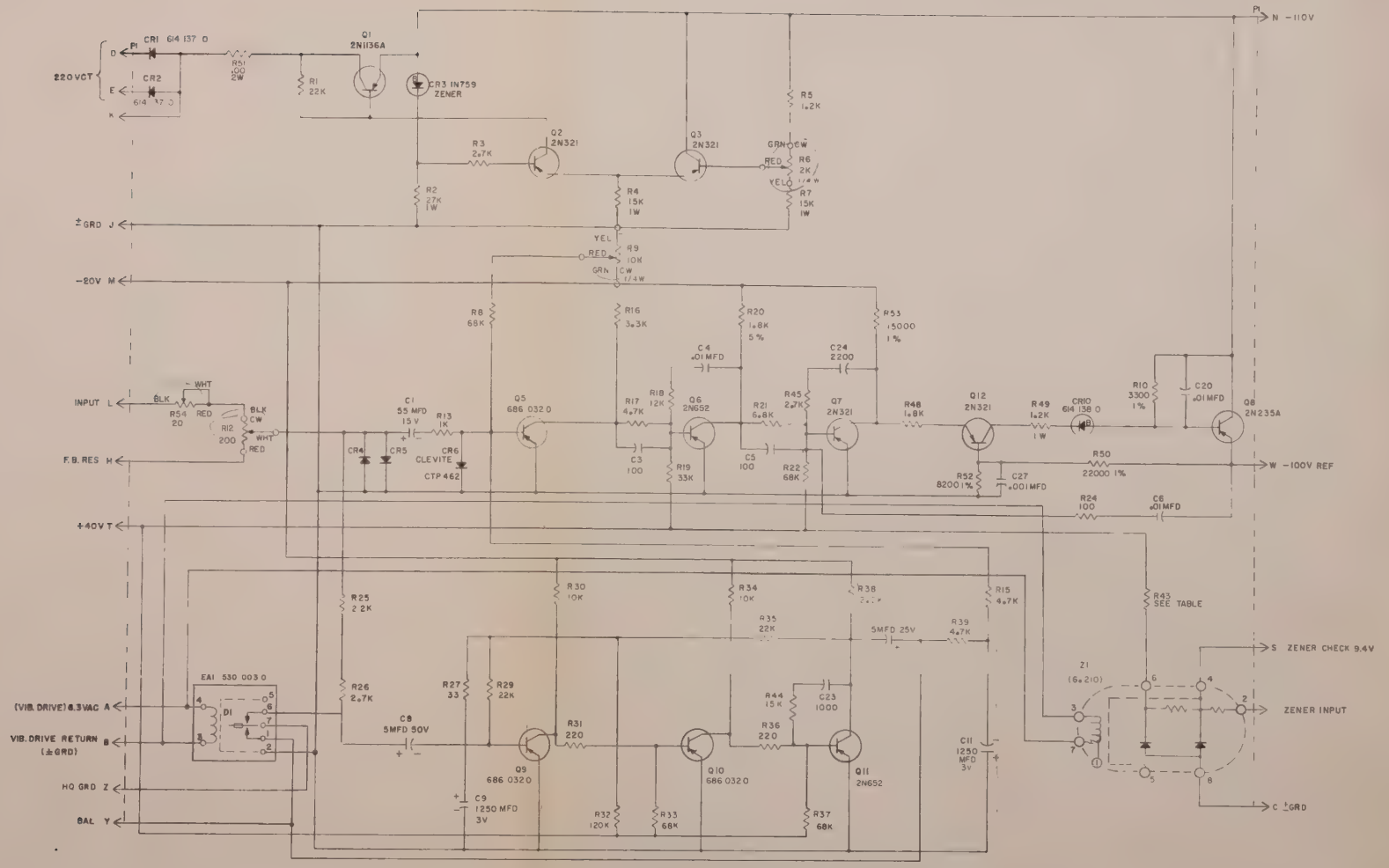
SCHEMATIC
DUAL D.C. AMPLIFIER
(SERIES 5001 TDVM)

SHT. NO.
SIZE
REV NO
PROJECT 1887
D006 463 0S
SHEET 1 OF 1 SHEETS



6.464 Reference Amplifier (AR2)

NOTE
1 ALL RESISTORS ARE 1/2 W ±10% UNLESS OTHERWISE SPECIFIED
2 ALL DIODES ARE HR10212 UNLESS OTHERWISE SPECIFIED

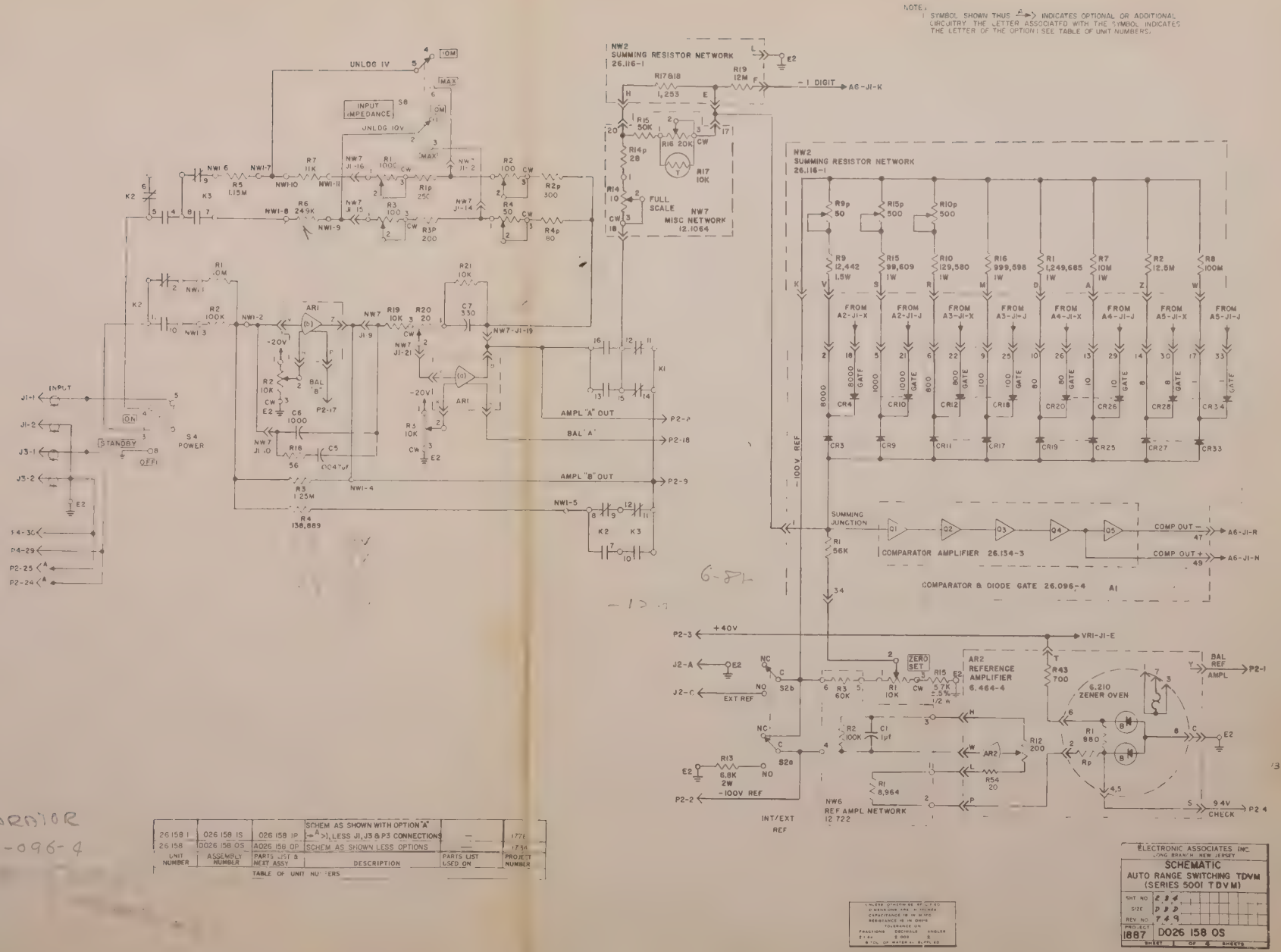


UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
6 464 -	D06 464 15	C06 464 1P	VALUE OF R43 IS 3700Ω ±1%, 1W	A026 139 OP	1877
- 464	D06 464 05	A06 464 0P	VALUE OF R43 IS 7700Ω ±1%, ½W	A026 158 OP	1887

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY
SCHEMATIC
REFERENCE AMPLIFIER
(SERIES 8001 TDVM)

SMT. NO	
SIZE	
REV. NO	
PROJECT	1887
	D006 464 05
SHEET	OF SHTS



IF COMPARATOR IS 26-096-4

UNIT NUMBER	ASSEMBLY NUMBER	PARTS LIST & NEXT ASSY	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
26 158 I	026 158 IS	026 158 IP	SCHEM AS SHOWN WITH OPTION "A" (-A->), LESS J1, J3 & P3 CONNECTIONS	—	1771
26 158	0026 158 OS	A026 158 OP	SCHEM AS SHOWN LESS OPTIONS	—	1744

TABLE OF UNIT NUMBERS

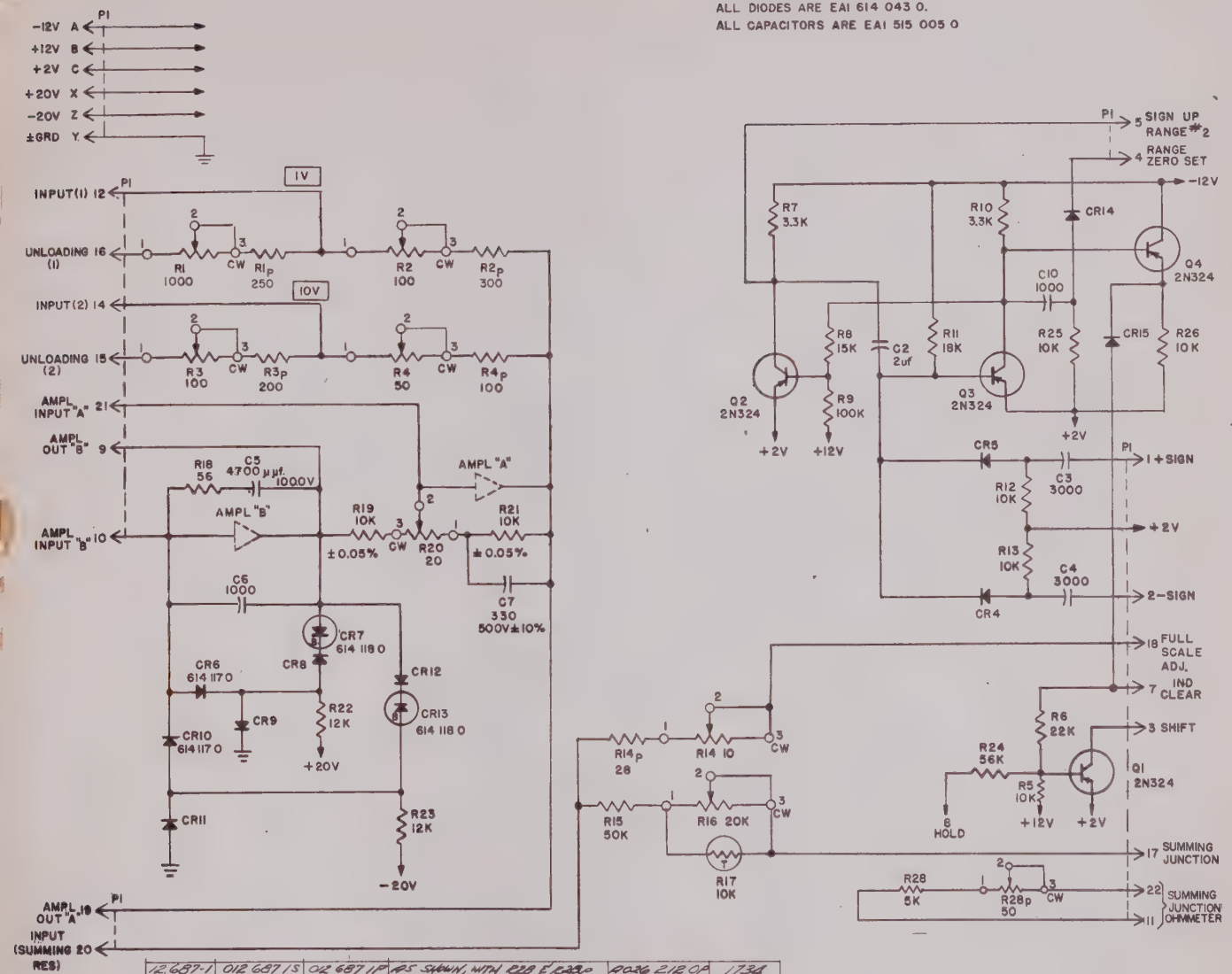
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
CAPACITANCE IN MFD
RESISTANCE IN OHMS
TOLERANCE ON
FRACTIONS ± 1/64
DECIMALS .XX ± .02, .XXX ± .010
ANGLES ± 1°
BREAK ALL SHARP EDGES .01 TO .02 MAX

ELECTRONIC ASSOCIATES INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC
AUTO RANGE SWITCHING TDVM
(SERIES 5001 TDVM)

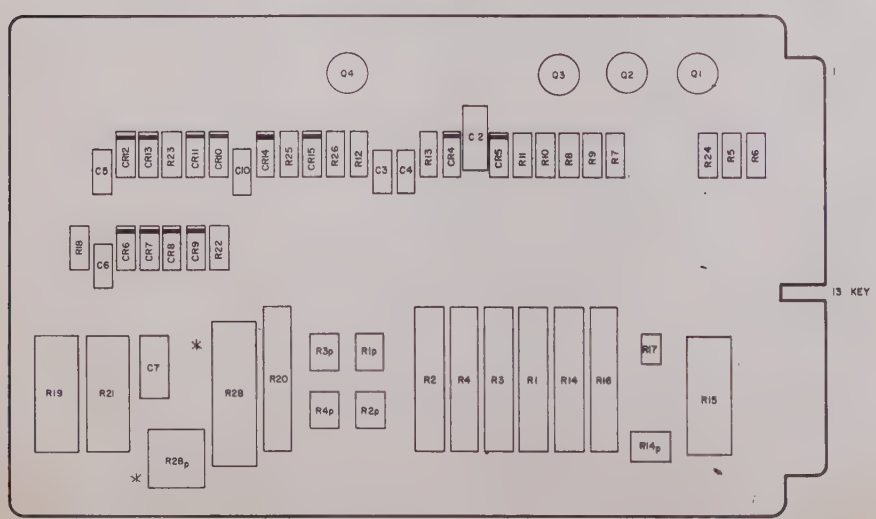
SHT NO	E 2 4
SIZE	D D D
REV NO	7 4 9
PROJECT	1887
	D026 158 OS
SHEET	OF 8 SHEETS

NOTE
1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS ARE ±10% TOL., 1/2 W
ALL DIODES ARE EAI 614 043 0.
ALL CAPACITORS ARE EAI 515 005 0



UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
12.687-1	012 687 1S	02 687 1P	AS SHOWN, WITH R28 & R28p	0026 2/12 OP	1734
12.687	C012 687 0S	0012 687 0P	AS SHOWN, LESS R28 & R28p	0026 1/88 OP	1887

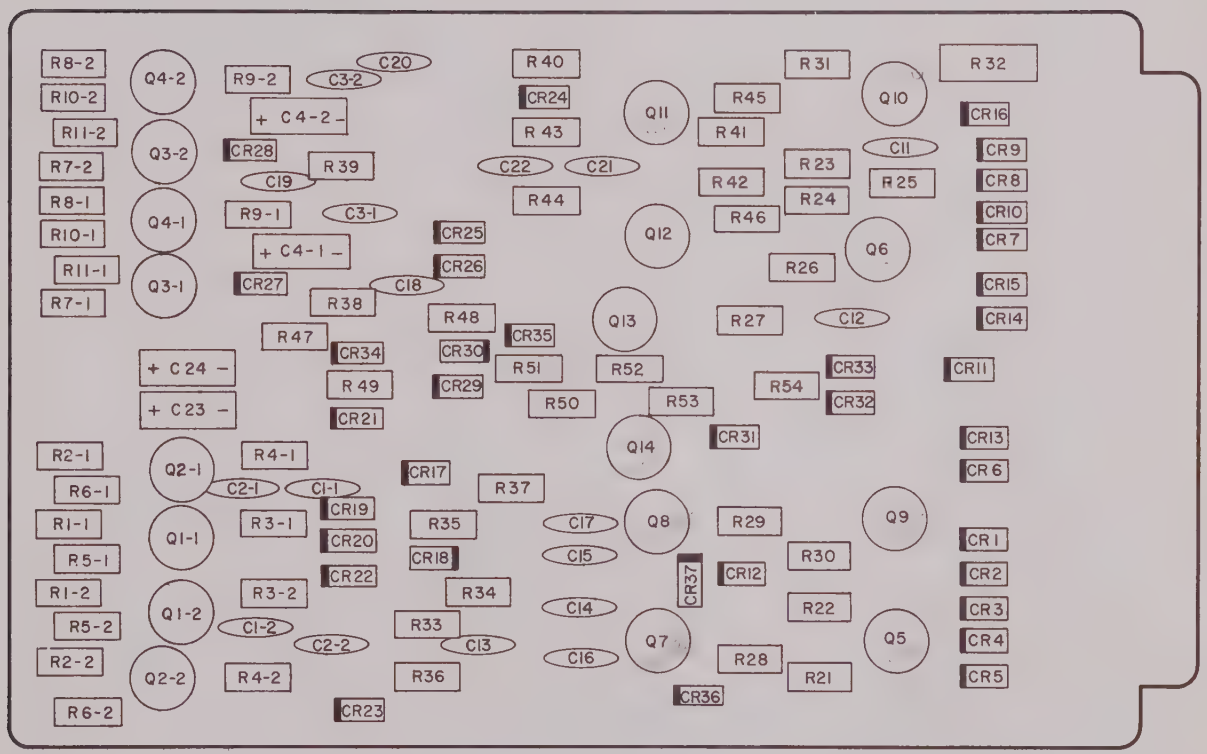
TABLE OF UNIT NUMBERS



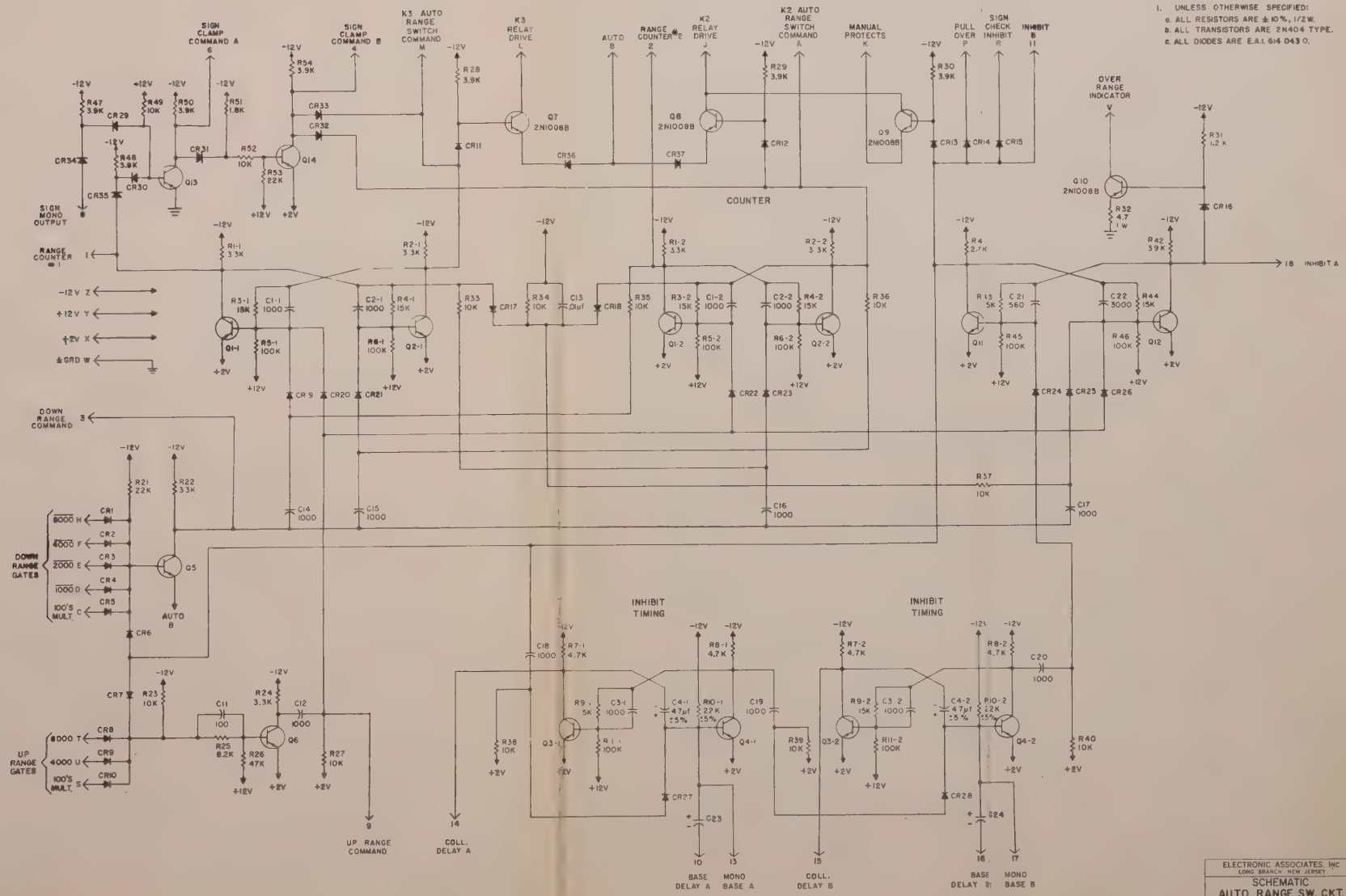
12.687 and 12.687-1 Miscellaneous Network Card (NW7)

**These components are added to the 12.687 to produce the 12.687-1.*

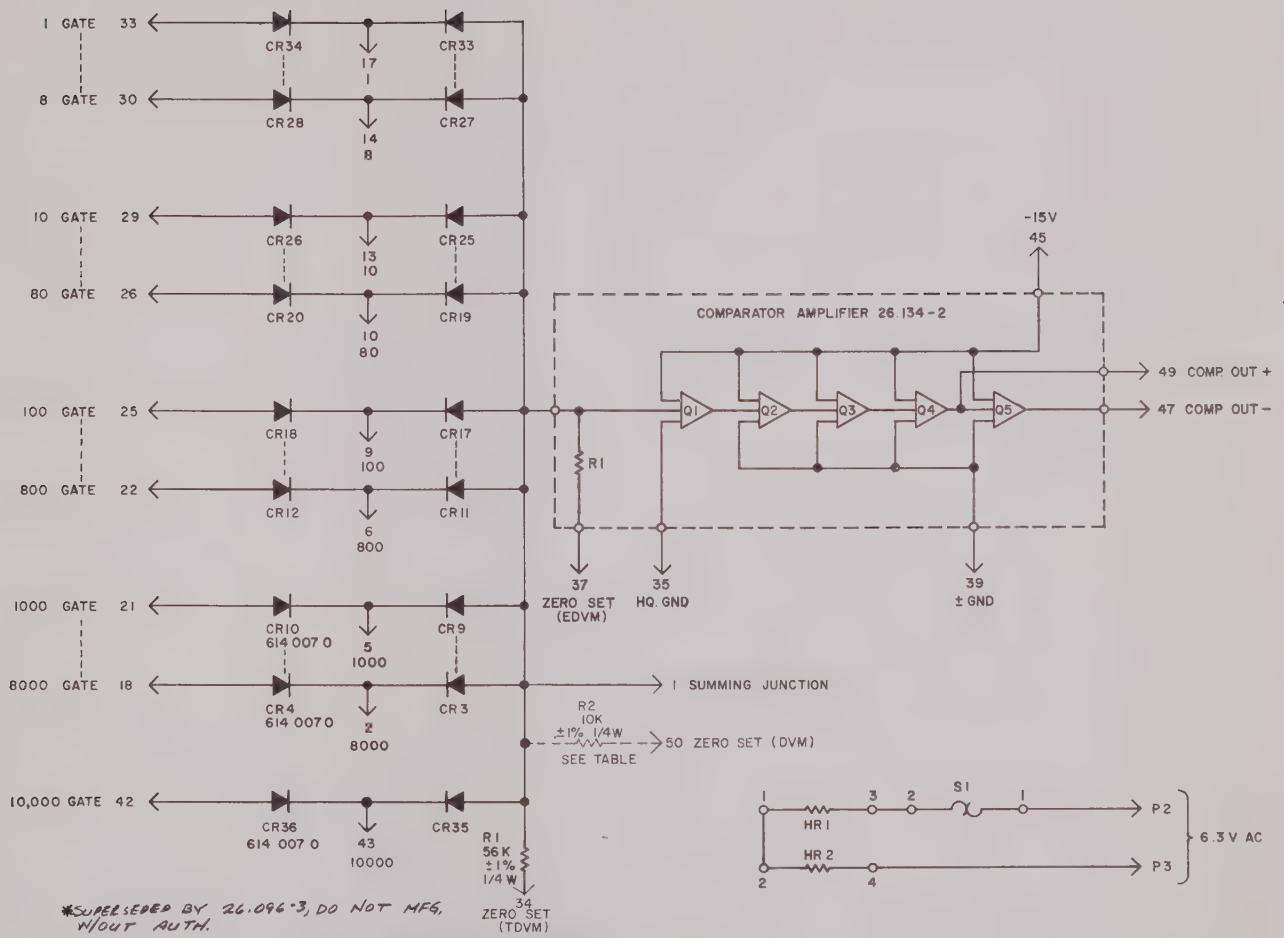
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY
SCHEMATIC
MISC. NETWORK CARD
(SERIES 5001 TDVM)
SHT. NO.
SIZE
REV. NO.
PROJECT 1887 C012 687 0S
SHEET / OF / SHEETS



14.156 Auto Range Switching Circuit (A11)


NOTES.
1. UNLESS OTHERWISE SPECIFIED:
a. ALL RESISTORS ARE ±10%, 1/2W.
b. ALL TRANSISTORS ARE 2N404 TYPE.
c. ALL DIODES ARE E.A.I. 6H 043 O.
SIGN CLAMP COMMAND A 6
SIGN CLAMP COMMAND B 4
K3 AUTO RANGE SWITCH COMMAND M
K3 RELAY DRIVE L
AUTO B
RANGE COUNTER #2 2
K2 RELAY DRIVE J
K2 AUTO RANGE SWITCH COMMAND A
MANUAL PROTECTS K
PULL OVER P
SIGN CHECK INHIBIT R
INHIBIT B 11
OVER RANGE INDICATOR V
SIGN MONO OUTPUT 8
RANGE COUNTER #1 1
COUNTER
-12V Z
+12V Y
±2V X
±GRD W
DOWN RANGE COMMAND 3
DOWN RANGE GATES
8000 H
4000 F
2000 E
1000 D
100'S MULT. C
AUTO B
UP RANGE GATES
8000 T
4000 U
100'S MULT. S
UP RANGE COMMAND 9
COLL. DELAY A 14
INHIBIT TIMING
INHIBIT TIMING
BASE DELAY A 10
MONO BASE A 13
COLL. DELAY B 15
BASE DELAY B 16
MONO BASE B 17
18 INHIBIT A
Q1-1
Q1-2
Q2-1
Q2-2
Q3-1
Q3-2
Q4-1
Q4-2
Q5
Q6
Q7 2N1008B
Q8 2N1008B
Q9 2N1008B
Q10 2N1008B
Q11
Q12
Q13
Q14
CR1
CR2
CR3
CR4
CR5
CR6
CR7
CR8
CR9
CR10
CR11
CR12
CR13
CR14
CR15
CR16
CR17
CR18
CR20
CR21
CR22
CR23
CR24
CR25
CR26
CR27
CR28
CR29
CR30
CR31
CR32
CR33
CR34
CR35
CR36
CR37
R1-1 3.3K
R1-2 3.3K
R2-1 3.3K
R2-2 3.3K
R3-1 19K
R3-2 15K
R4-1 15K
R4-2 15K
R5-1 100K
R5-2 100K
R6-1 100K
R6-2 100K
R7-1 4.7K
R7-2 4.7K
R8-1 4.7K
R8-2 4.7K
R9-1 5K
R9-2 15K
R10-1 22K ±5%
R10-2 22K ±5%
R11-1 100K
R11-2 100K
R13 5K
R44 15K
R46 100K
C1-1 1000
C1-2 1000
C2-1 1000
C2-2 1000
C3-1 1000
C3-2 1000
C4-1 47µf ±5%
C4-2 47µf ±5%
C11 100
C12 1000
C13 .01uf
C14 1000
C15 1000
C16 1000
C17 1000
C18 1000
C19 1000
C20 1000
C21 560
C22 3000
C23
C24
R21 22K
R22 3.3K
R23 10K
R24 3.3K
R25 8.2K
R26 47K
R27 10K
R28 3.9K
R29 3.9K
R30 3.9K
R31 1.2K
R32 4.7 1W
R33 10K
R34 10K
R35 10K
R36 10K
R37 10K
R38 10K
R39 10K
R40 10K
R42 3.9K
R45 100K
R47 3.9K
R48 3.9K
R49 10K
R50 3.9K
R51 1.8K
R52 10K
R53 22K
R54 3.9K
-12V
+12V
+2V
+12V
ELECTRONIC ASSOCIATES, INC
LONG BRANCH NEW JERSEY
SCHEMATIC
AUTO. RANGE SW. CKT.
(SERIES 5001 TDVM)
SHT NO
SIZE
REV NO
PROJECT 1778
D014 156 OS
SHEET 1 OF 1 SHEETS

NOTES
1. UNLESS OTHERWISE SPECIFIED ALL DIODES ARE 614 034 0
2. UNLESS OTHERWISE SPECIFIED ALL CONN PINS REF TO P1



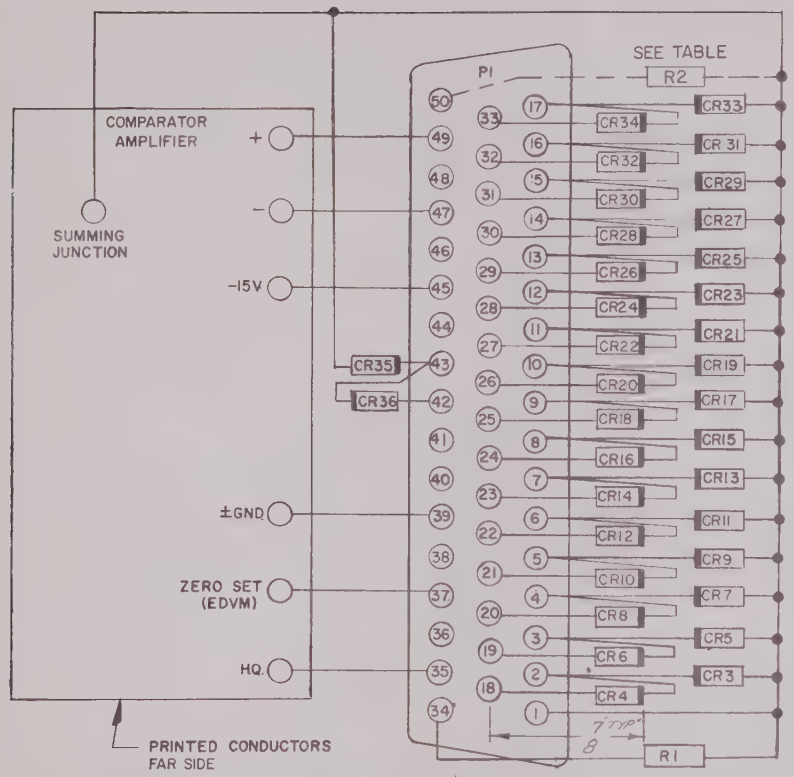
*SUPERSEDED BY 26.096-3, DO NOT MFG. W/OUT AUTH.

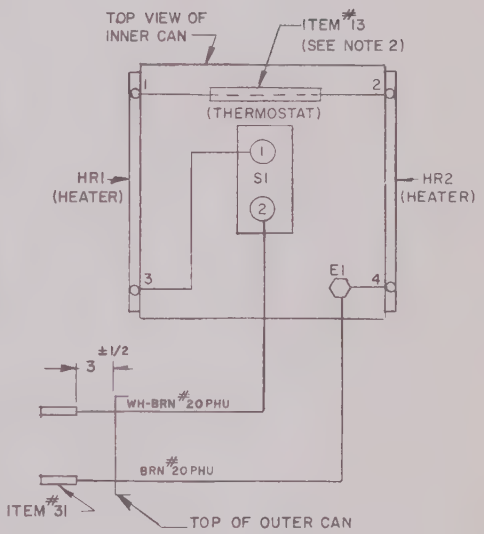
UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
26.096-3	026 096 3S	026 096 3P	AS SHOWN, WITH R2	A026 045 OP	1969
26 096 2	026 096 2S	026 096 2P	AS SHOWN EXCEPT LESS R2, PLUS C1 & CONN ACROSS CR34 & C2 IS CONN ACROSS CR32	A026 156 OP	1423
* 26.096-1	026 096 1S	026 096 1P	AS SHOWN, LESS R2	A026 045 OP	1969
26.096	C026 096 0S	A026 096 0P	LESS R2 USE COMPARATOR AMPL. 26.134 0	———	1969

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
SCHEMATIC COMPARATOR & DIODE GATE	
SHT. NO.	
SIZE	
REV NO.	
PROJECT 1969	C026 096 0S
SHEET	OF SHEETS

NOTE:
1. ALL JUMPERS TO BE SD-BUS #20 AWG.
2. USE INSULATED TWO WAY CONNECTOR ITEM #13 TWIST WIRES TOGETHER & CRIMP WITH T&B TOOL WT-105M.
3. WIRES FROM POSITIONS 1,2,3,4 ON HR1 & HR2 ARE EXISTING WIRES ON HEATER.





UNIT NUMBER	WIRING NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
26.096-3	026 096 3W	026 096 3P	AS SHOWN WITH R2	A026 045 0P	1969
26.0962	026 0962W	026 096 2P	AS SHOWN, EXCEPT LESS R2 C1 IS CONNECTED BETWEEN TERM. 17 & 33 AND C2 IS CONNECTED BETWEEN TERM. 16 & 32.	A026 156 0P	1423
26.096-1	026 096 1W	026 096 1P	AS SHOWN LESS R2	A026 045 0P	1969
26096	B026 096 0W	A026 096 0P	AS SHOWN LESS R2	———	1969

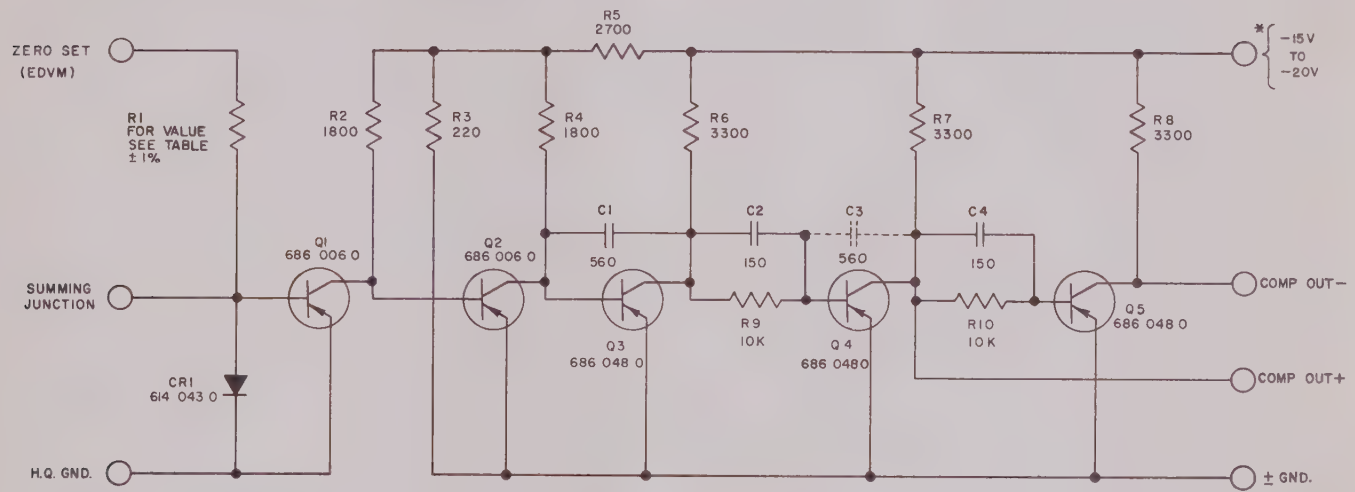
TABLE OF UNIT NUMBERS

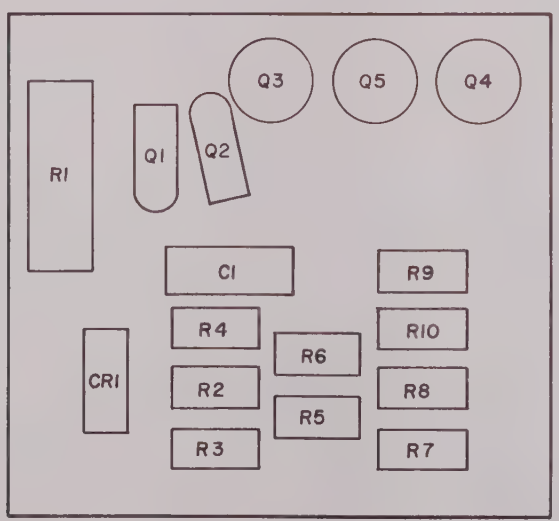
ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
WIRING COMPARATOR & DIODE GATE	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1969	B026 096 0W
SHEET 1 OF 1 SHEETS	

UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
26 134-2	026 134 2S	026 134 2P	LESS C2 & C4, R1 TO BE 190K, 1/4 W	026 096 1P	1969
26.134-1	026 134 1S	026 134 1P	LESS C1, R1 TO BE 56K, 1/2 W	———	———
26.134	C026 134 0S	A026 134 0P	LESS C2 & C4, R1 TO BE 56K, 1/2 W	A026 096 0P	1969

TABLE OF UNIT NUMBERS

NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTORS ARE ± 10% TOLERANCE, 1/2 W.
2. C3 SHOWN FOR REFERENCE ONLY. IT IS NOT USED IN PRESENT DESIGN
3. ON THE TERMINAL DESIGNATED BY (*) THE VOLTAGE APPLIED DEPENDS ON THE EXTERNAL POWER SUPPLY USED.





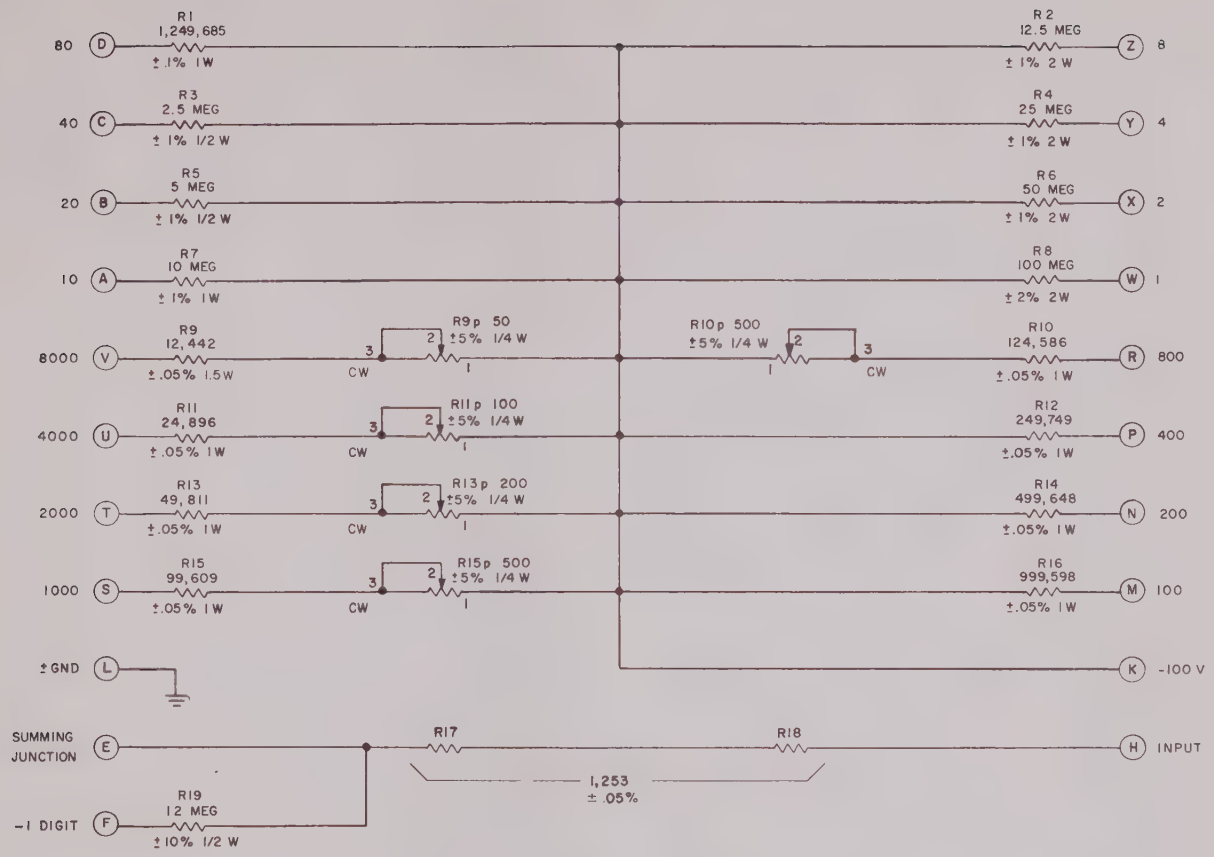
26.134-2 Comparator Amplifier (Part of A1)

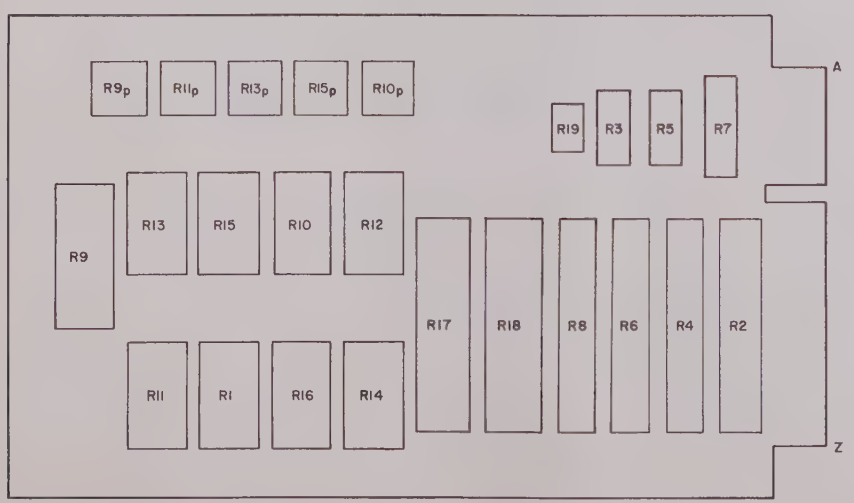
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC DIAGRAM
COMPARATOR AMPLIFIER

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1969	C026 134 0S

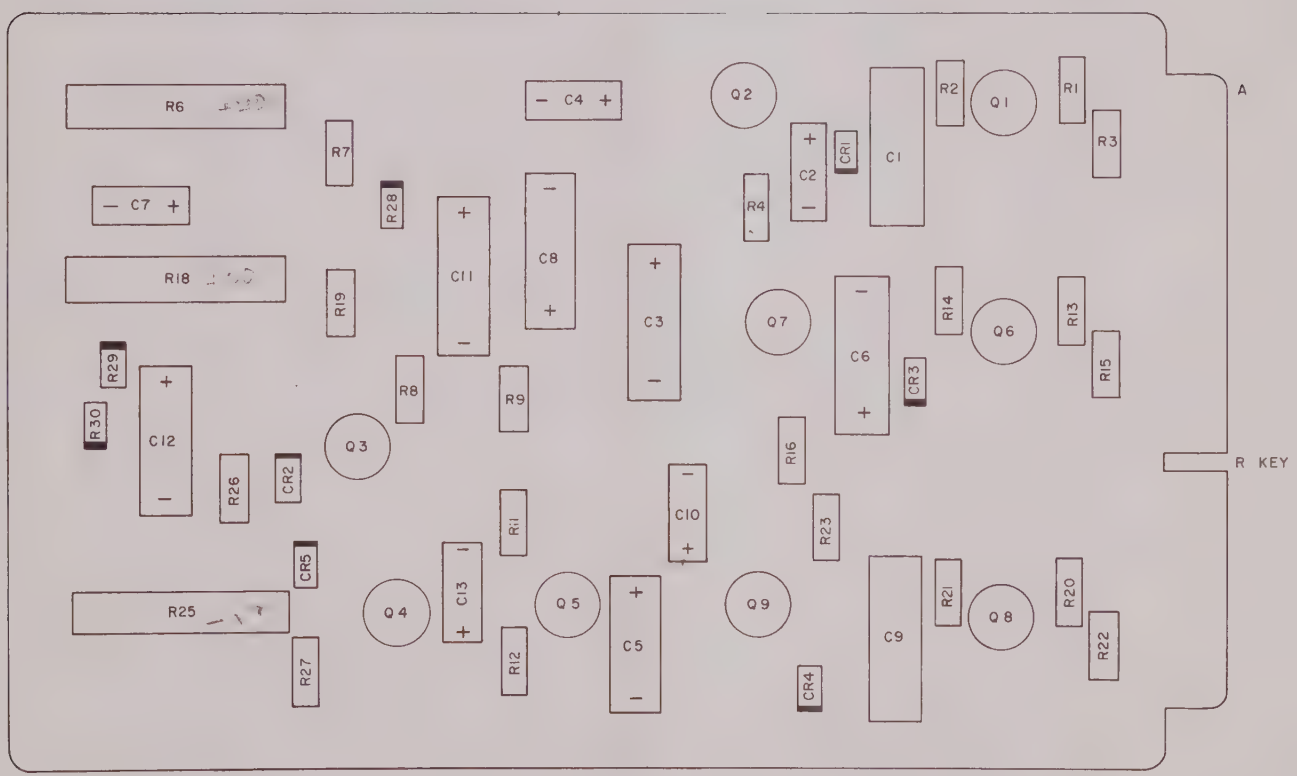
SHEET / OF / SHEETS



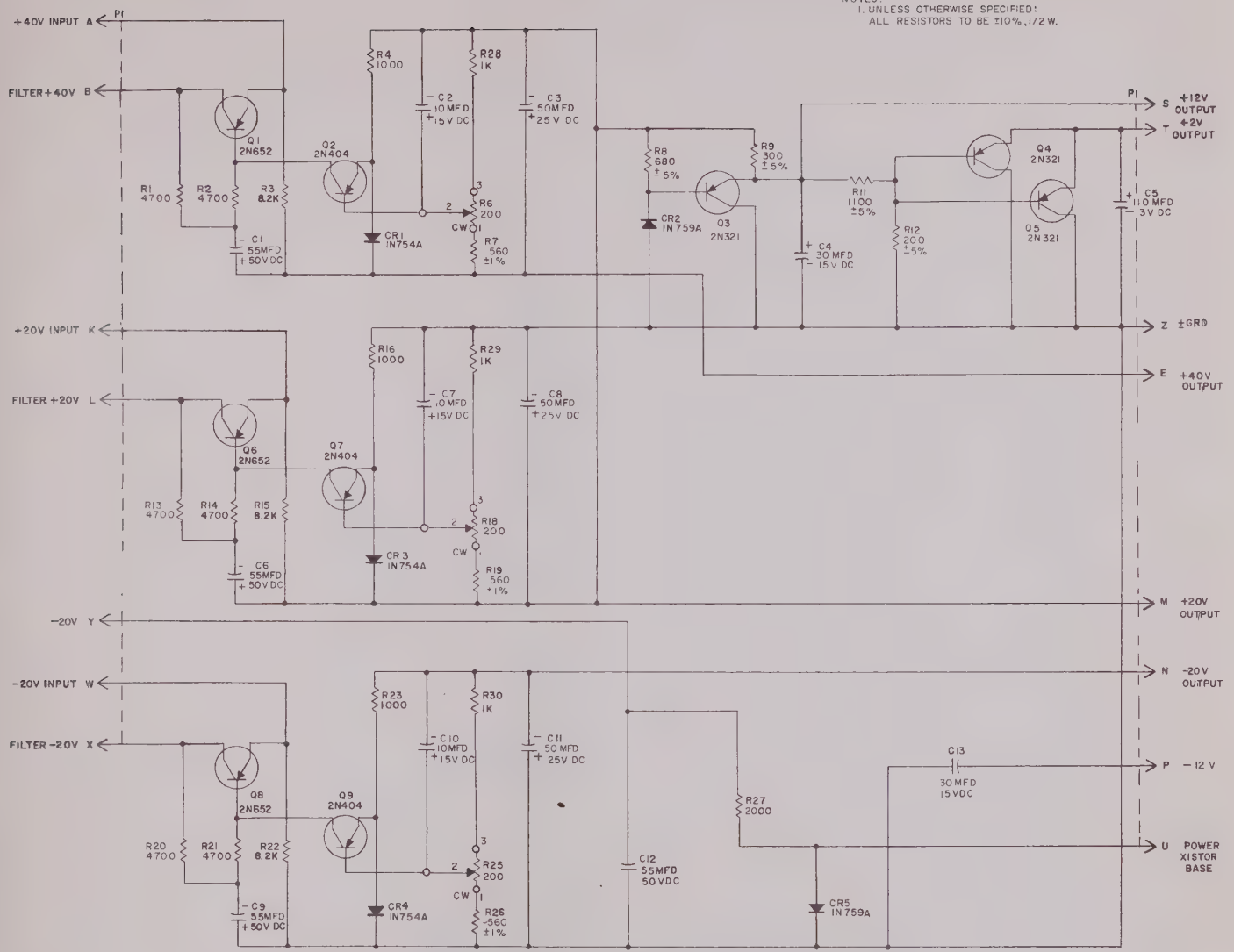


ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
SCHEMATIC SUMMING RESISTOR NETWORK	
SHT. NO	
SIZE	
REV. NO	
PROJECT 1877	C026 116 OS
SHEET OF SHEETS	

26.116 Summing Resistor Network (NW2)



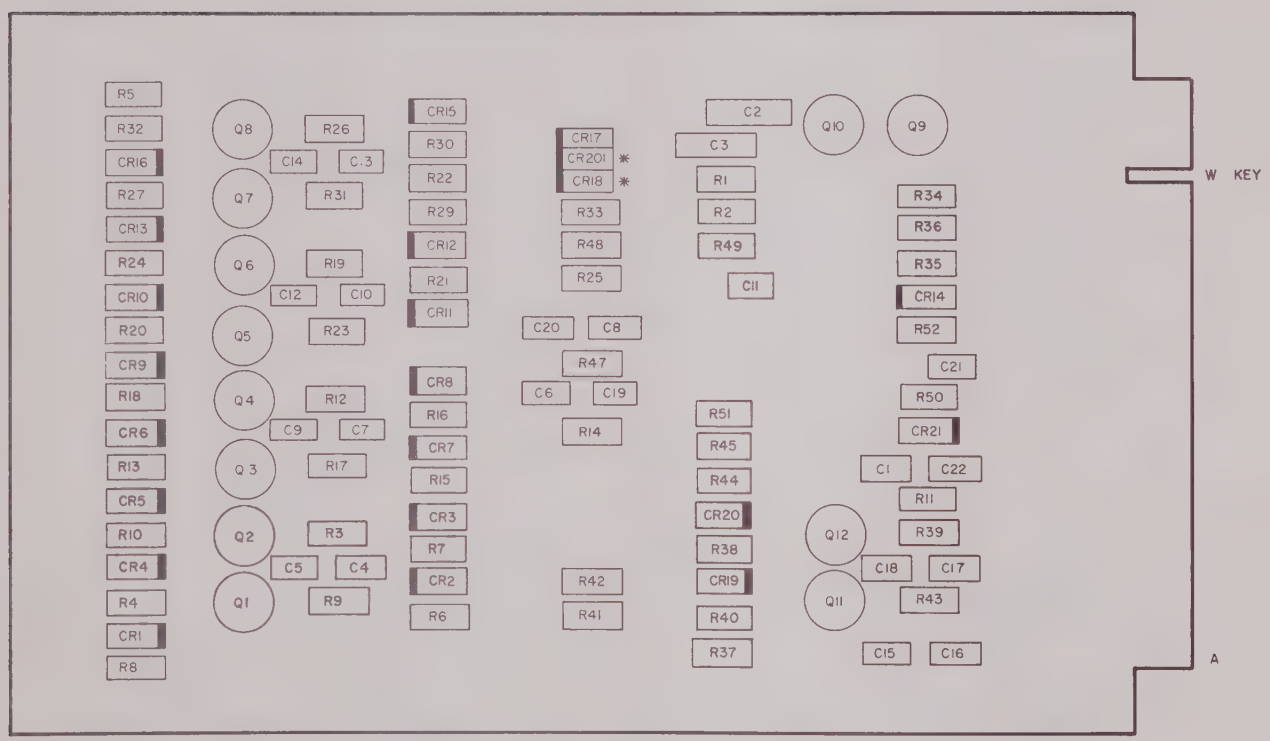
43.094-1 Power Supply Regulator (VR1)



UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
A3.094-1	C043 094-1S	A043094 1P	ELECTRICALLY SAME AS A3094	A026 158 0P	1887
A3.094	C043 094 0S	A043094 0P	AS SHOWN	——	——

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SCHEMATIC	
POWER SUPPLY REGULATOR	
(SERIES 5001 TDVM)	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1887	C043 094 0S
SHEET / OF / SHEETS	



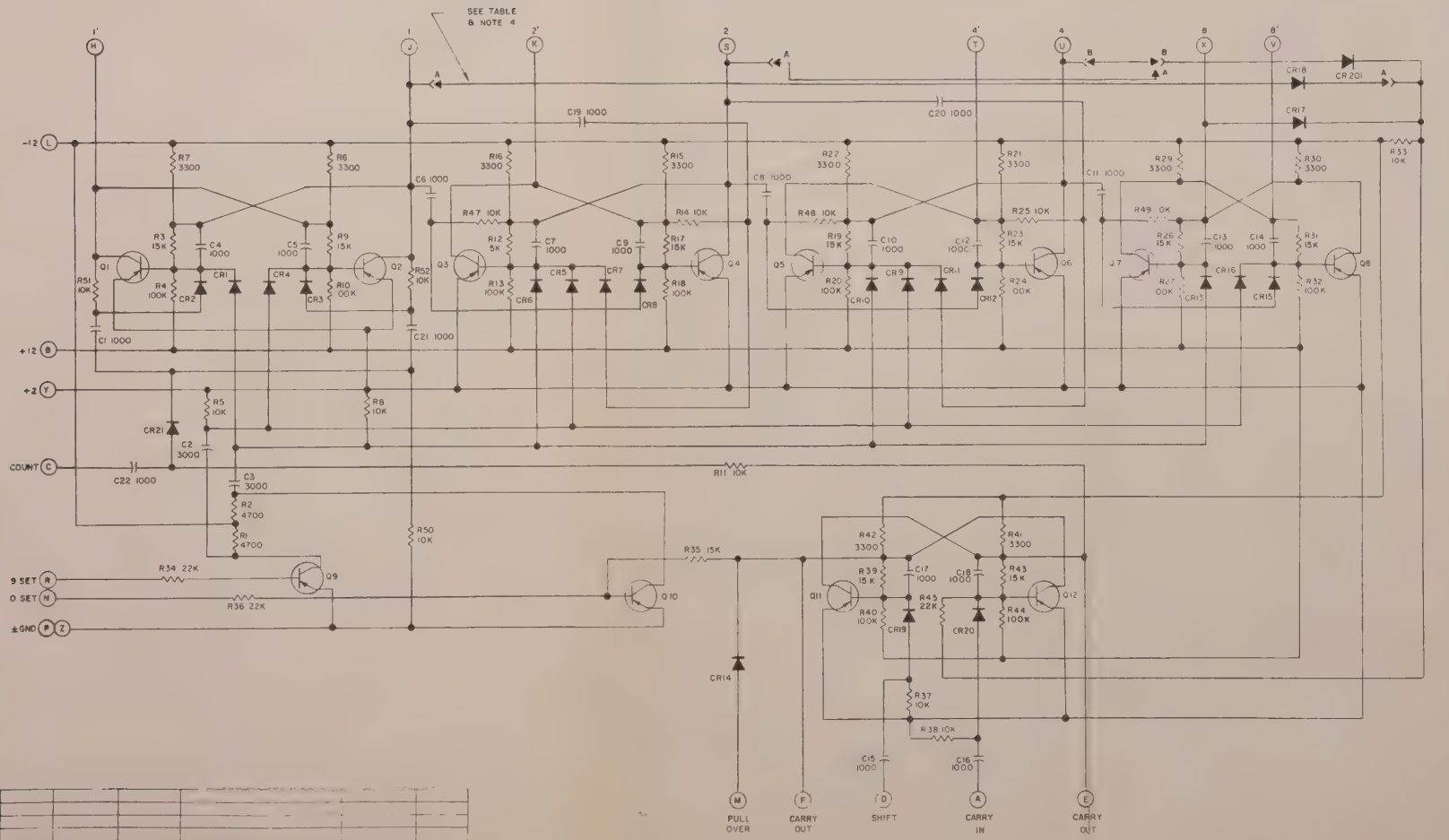
44.139-1 and 44.139-5 Binary Coded Decade Counter (A2 through A6)

NOTES:

44.139-1 as shown less CR201
44.139-5 as shown less CR18

NOTES.

1. UNLESS OTHERWISE SPECIFIED ALL TRANSISTORS PER BG86 032 0
2. UNLESS OTHERWISE SPECIFIED ALL DIODES ARE EAI 614043 0
3. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE ±10% TOLERANCE 1/2 WATT
4. OPTIONS SHOWN ARE ALTERNATE CIRCUITRY AND/OR CIRCUIT PATHS. THEY DO NOT NECESSARILY REPRESENT PHYSICAL JUMPERS.



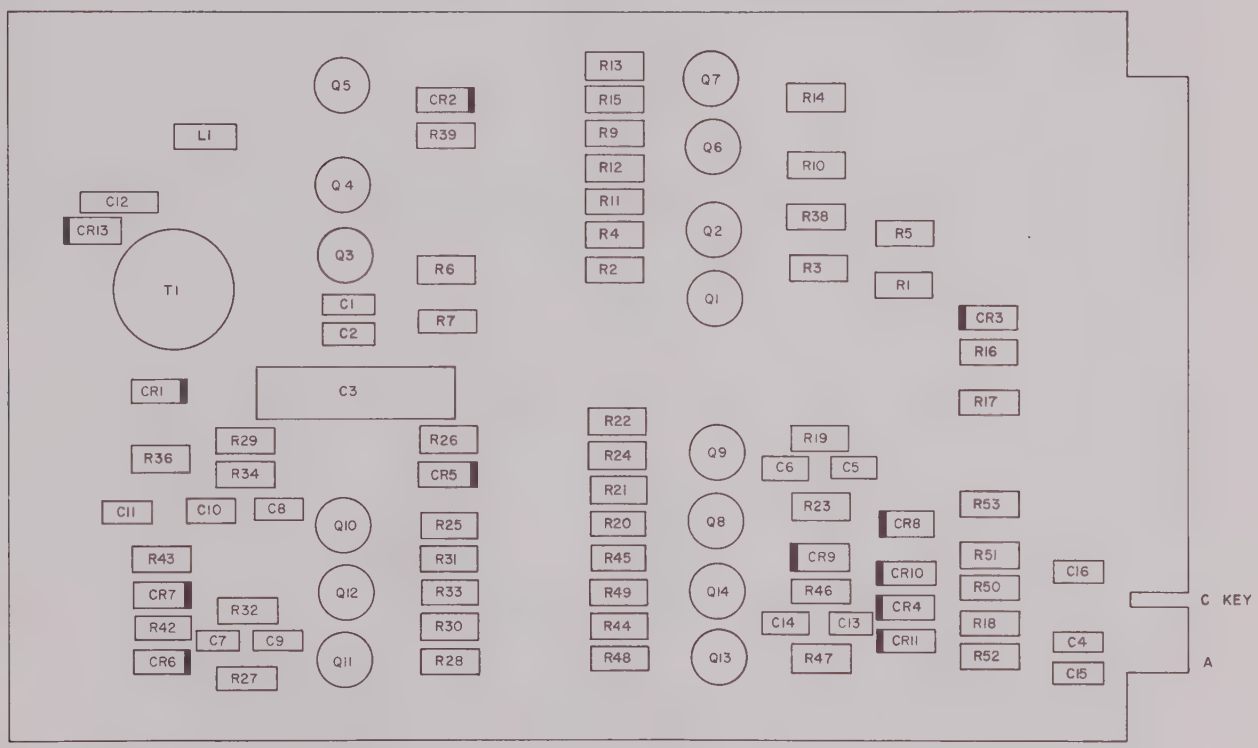
UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASS'Y.	DESCRIPTION	PARTS LIST USED ON:	PROJECT NUMBER
44139-5	044139 5S	044139 5P	LESS CR18 & OPTION "A"	A026 158 OP	1887
44139-4	044139 4S	044139 4P	LESS CR18, OPTION "A" & LEVER ASS'Y	—	—
44139-3	044139 3S	044139 3P	LESS OPTION "B"	A026 156 OP	1423
44139-2	044139 2S	044139 2P	LESS OPTION "B" & LEVER ASS'Y.	—	—
44139-1	044139 1S	044139 1P	LESS CR201 & OPTION "B"	A026 139 OP	1877
44139	D044 139 0S	A044 139 0P	LESS CR201, OPTION "B" & LEVER ASS'Y	A026 045 OP	1969

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC DIAGRAM
BINARY CODED
DECADE COUNTER

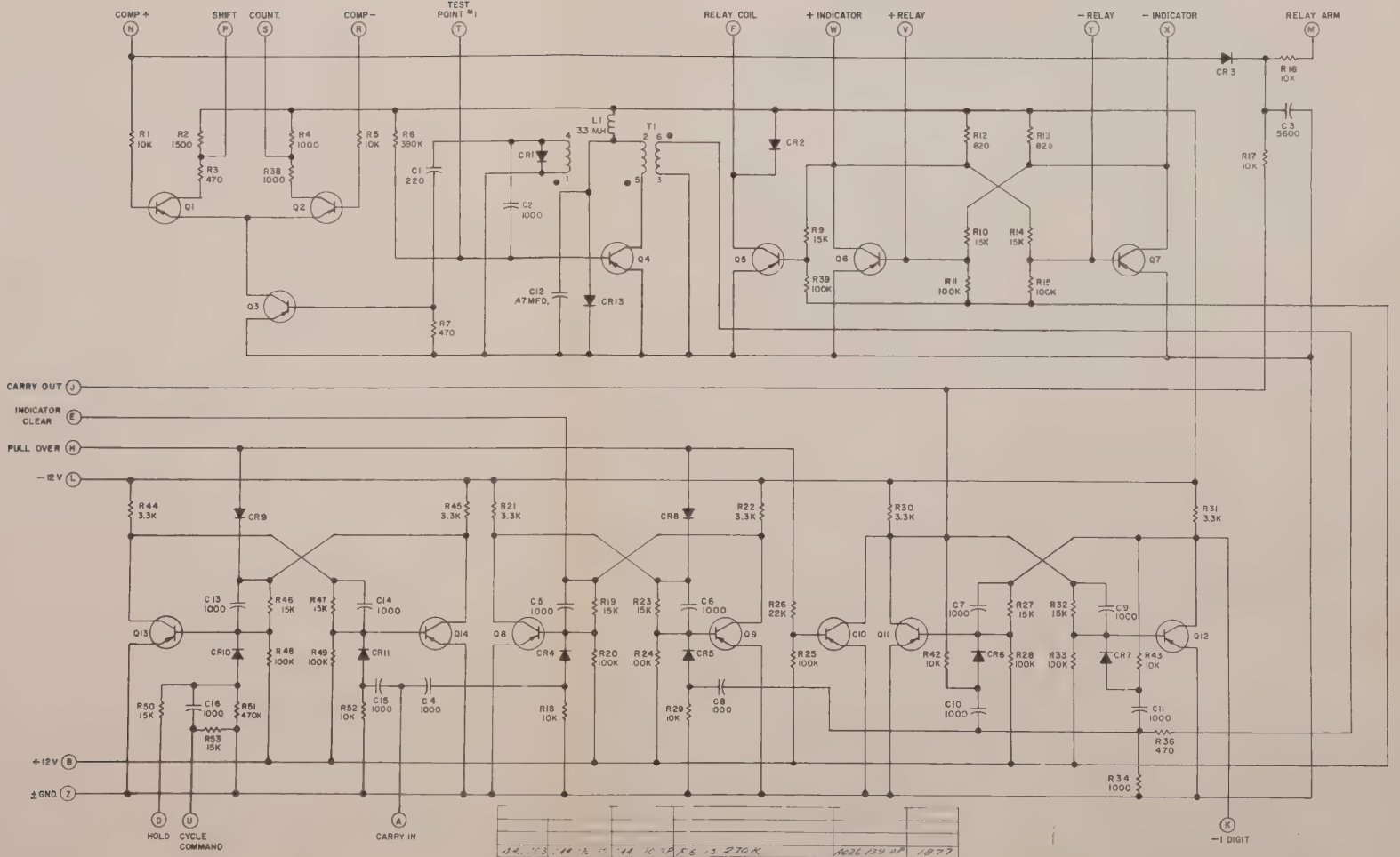
SHT. NO.
SIZE
REV. NO.
PROJECT 1969 D044 139 0S



44.170-3 Programmer (A6)

NOTES

1. UNLESS OTHERWISE SPECIFIED ALL TRANSISTORS PER 8686 032 O.
2. UNLESS OTHERWISE SPECIFIED ALL DIODES ARE 614 043 O OR EQUAL
3. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ± 10% TOLERANCE, 1/2 W.



UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASS'Y	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
A9.12.3	44 12 15	44 10 OP	R6 = 270K	A026 139 OP	1077
A9.17.2	26 10 25	249.17 2P	R6 = 270K LESS LEVER ASS'Y		
74. "	44 " 15	44 " P	AS SHOWN		
A9.17.	44 " 25	44 10 OP	AS SHOWN LESS LEVER ASS'Y	A026 139 OP	1069

TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC DIAGRAM
PROGRAMMER

SHT. NO.
SIZE
REV. NO.
PROJECT 1969
D044 170 0S
SHEET 1 OF SHEETS

P1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1		COLUMN 2	
			DESTINATION	WIRE	DESTINATION	WIRE
	P1-1	Function GRD	P2-44	BLK 18	P1-17	BLK 20
	2					
	3	Dec. Point 10V	P2-12	WHT-RED		
	4	Dec. Point 1V	P2-11	WHT-BRN		
	5	Dec. Point 100V	P2-13	WHT-VIO		
	6	Dec. Point 1000V	P2-19	WHT-GRY		
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	±Grd			P1-1	BLK 20
	18	Relay Code	P2-1	BRN		
	19	Relay Code	P2-2	RED		
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32	K Ohms	P2-22	YEL		
	33	AC Lamp	P2-17	GRY		
	34	± Lamp	P2-16	BLK		
	35	Dec. Point Lamp	P2-15	BLK		
	36	Range SW. 10V	P2-6	VIO		
	37	Remote	P2-3	ORN		
	38	Auto	P2-4	YEL		
	39					
	40	1V Range	P2-5	GRN		
	41	10V Range	P2-6	VIO		
	42	100V Range	P2-7	BLU		
	43					
	44					
	45					
	46					
	47					
	48					
	49					
	50					
	51					
	52					
	53					
	54					
	55					
	56					
	57					
	58					
	59					
	P1-60					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
WIRING CONNECTOR, JUNCTION BOX (AUTO-MULT. SER. 5003)	
SHT. NO.	2 3
SIZE	B B
REV. NO.	1 1
PROJECT 1778	B 047 048 0W
SHEET 1 OF 3 SHEETS	

P1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	P1-61	Function Grd.	P2-37	BLK #18		
	62					
	63					
	64	Sign Relay Lock	P2-24	BLU		
	65	Mono Time	P2-25	Coax #1		
	66	Mono Time	P2-26	Coax #2		
	67	Mono Time	P2-27	Coax #3		
	68	Mono Time	P2-28	Coax #4		
	69	Range Card	P2-21	BLU		
	70	117V AC (Hot)	P2-41	BLK #16		
	71	117V AC (Comm)	P2-42	WHT #16		
	72	Chassis Grd	P2-43	GRN #16		
	73					
	74	HQ Grd	P2-31	BLK 20		
	75	Output High	P2-29	Coax #5		
	76	Output Low	P2-30	BLK #18		
	77					
	P1-78	-8V Grd	P2-20	BLK 20		

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 047 048 00
SHEET 2 OF SHEETS	

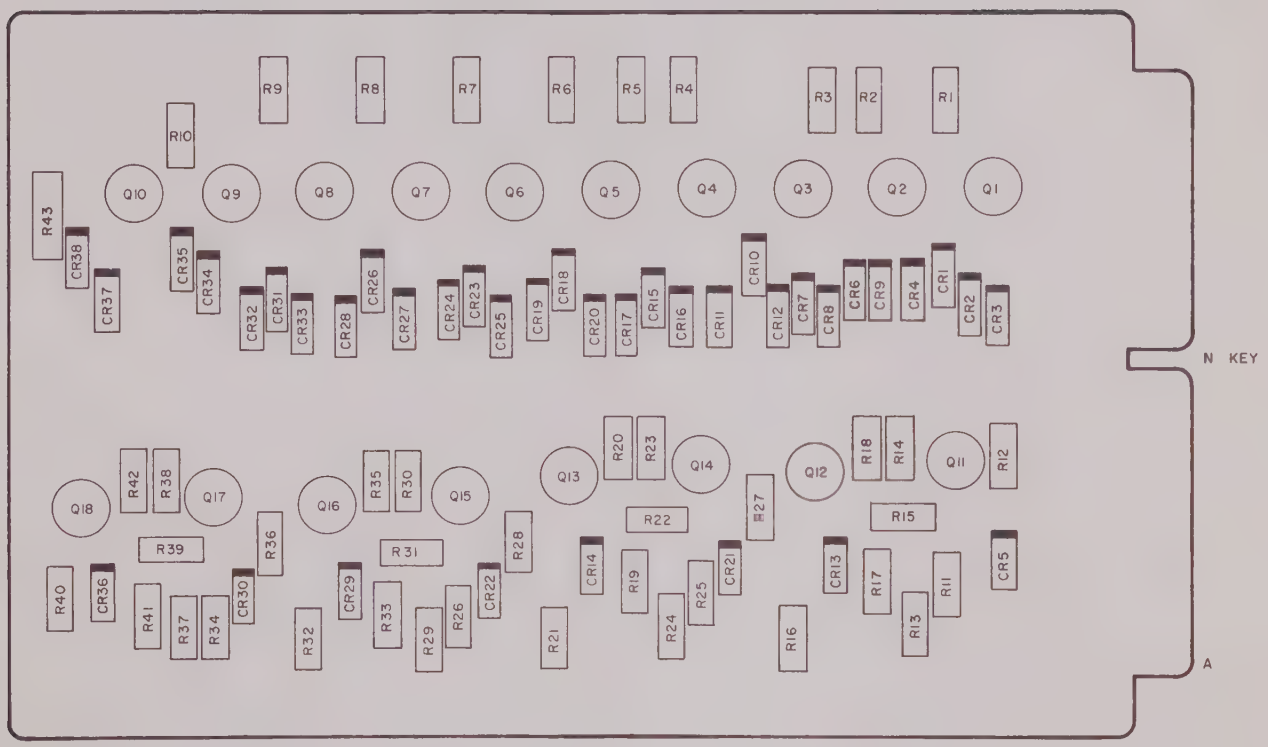
NOTE: All Coax to be gounded on jumper between P2-44 and 45:

P2

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	P2-1	Relay Code	P1-18	BRN		
	2	Relay Code	P1-19	RED		
	3	Remote	P1-37	ORN		
	4	Auto	P1-38	YEL		
	5	1V Range	P1-40	GRN		
	6	Range SW. 10V	P1-36	VIO	P1-41	VIO
	7	100V Range	P1-42	BLU		
	8					
	9					
	10					
	11	Dec. Point 1V	P1-4	WHT-BRN		
	12	Dec. Point 10V	P1-3	WHT-RED		
	13	Dec. Point 100V	P1-5	WHT-VIO		
	14					
	15	Dec. Point Lamp	P1-35	BLK		
	16	±Lamp	P1-34	BLK		
	17	AC Lamp	P1-33	GRY		
	18					
	19	Dec. Point 1000V	P1-6	WHT-GRY		
	20	-8V GRD	P1-78	BLK 20		
	21	Range Card	P1-69	BLU		
	22	K Ohms	P1-32	YEL		
	23					
	24	Sign Relay Lock	P1-64	BLU		
	25	Mono Time	P1-65	Coax #1		
	26	Mono Time	P1-66	Coax #2		
	27	Mono Time	P1-67	Coax #3		
	28	Mono Time	P1-68	Coax #4		
	29	Output High	P1-75	Coax #5		
	30	Output Low	P1-76	BLK #18		
	31	HQ Grd	P1-74	BLK #20		
	32					
	33					
	34					
	35					
	36					
	37	Function Grd	P1-61	BLK #18		
	38					
	39					
	40					
	41	117V AC (Hot)	P1-70	BLK #16		
	42	117V AC (Comm)	P1-71	WHT #16		
	43	Chassis GRD	P1-72	GRN #16		
	44	Function GRD	P1-1	BLK #18	↕	SD-BUS
	P2-45					

1

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 047 048 00
SHEET 3 OF SHEETS	



51.010-1 Readout Storage Decade (A7, A8, and A9)

UNIT NUMBER	SCHEMATIC NUMBER	PARTS LIST & NEXT ASSY	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
51 010-7	051 010 7S	051 010 7P	ELEC THE SAME AS 51 010-6		
-6	6S	6P	SHT 2 LESS R15,17,23,25,31,33,39,41		
-5	5S	5P	ELEC THE SAME AS 51 010-4		
-4	4S	4P	SHT 2 LESS R11,14,19,22,26,30,34,38		
-3	3S	3P	ELEC THE SAME AS 51 010-2		
-2	2S	2P	SHT 2 AS SHOWN	A026 160 0P	1728
-1	1S	1P	ELEC THE SAME AS 51 010	A026 139 0P	1877
51 010	D051 010 0S	A051 010 0P	SHT. 1 AS SHOWN	A026 048 0P	1969

TABLE OF UNIT NUMBERS

& SUPERSEDED BY (NONE) DO NOT MFG W/O AUTH

NOTES.
1 UNLESS OTHERWISE SPECIFIED:
ALL TRANSISTORS PER B686 032 0
ALL RESISTORS ARE ±10% TOLERANCE, 1/2 WATT
ALL DIODES ARE EAI 614 043 0.

BINARY CODED OUTPUTS

DIGITAL OUTPUTS

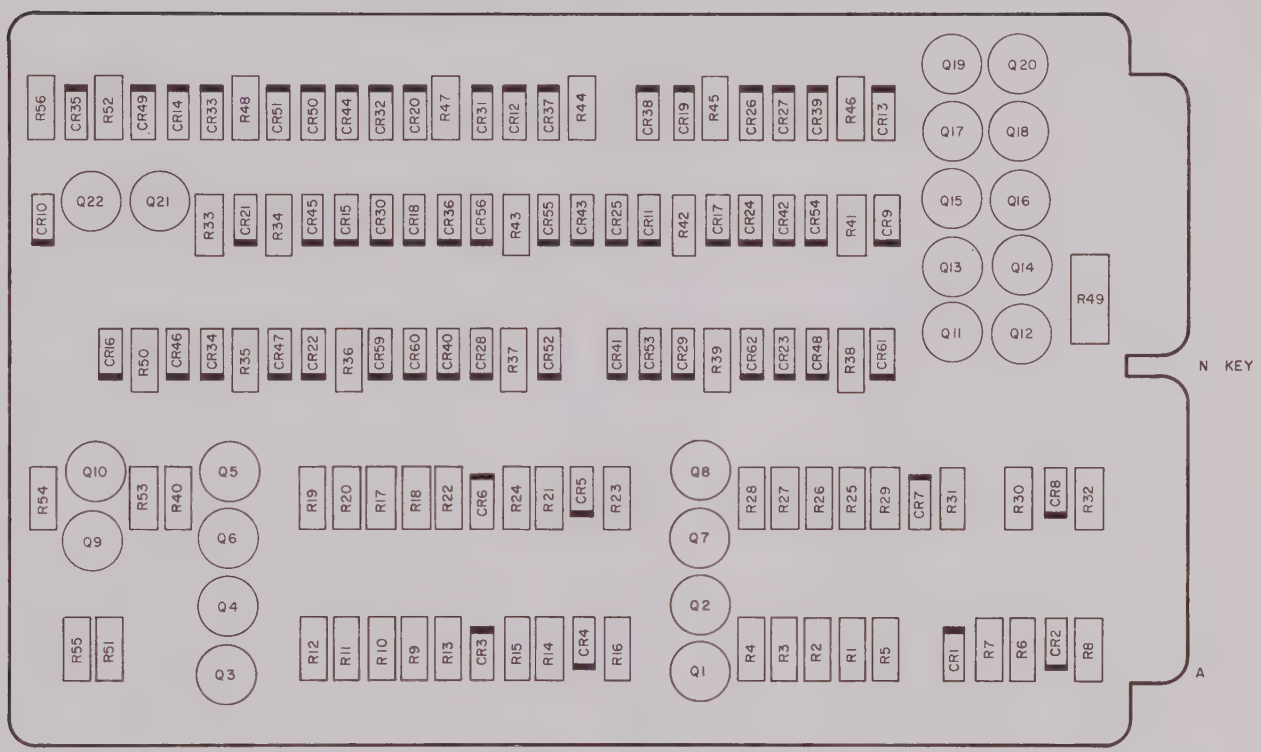
BINARY CODED INPUTS

(1) (2) (4) (8)

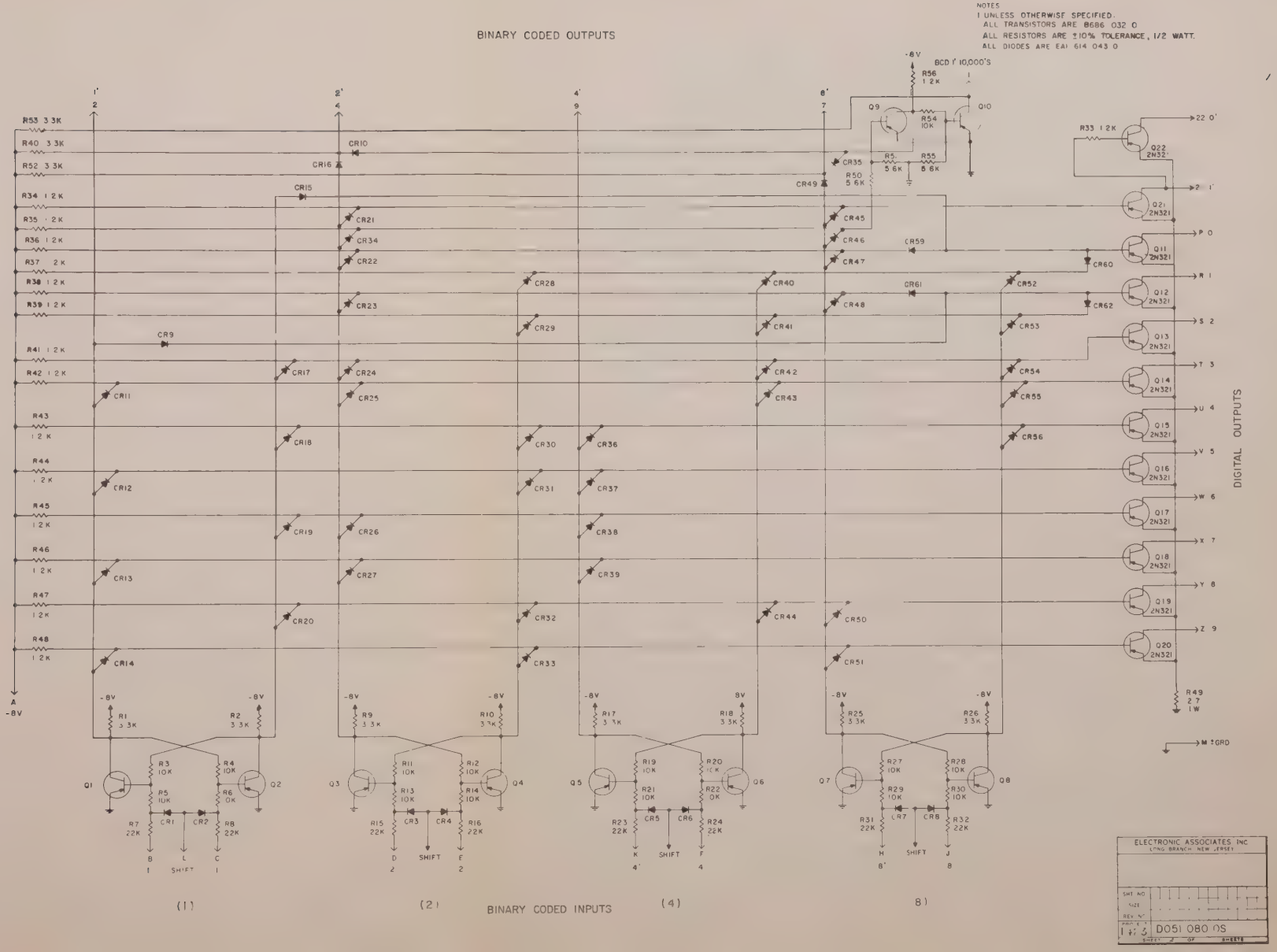
ELECTRONIC ASSOCIATES INC
LONG BRANCH NEW JERSEY

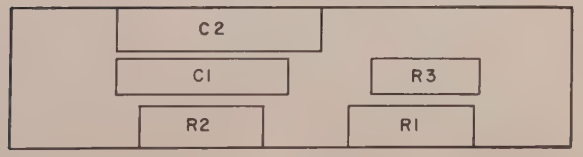
SCHEMATIC
READOUT STORAGE DECADE

SHT NO 2
SIZE D
REV NO 1
PROJECT 1969 D051 010 0S
SHEET 1 OF 2 SHEETS

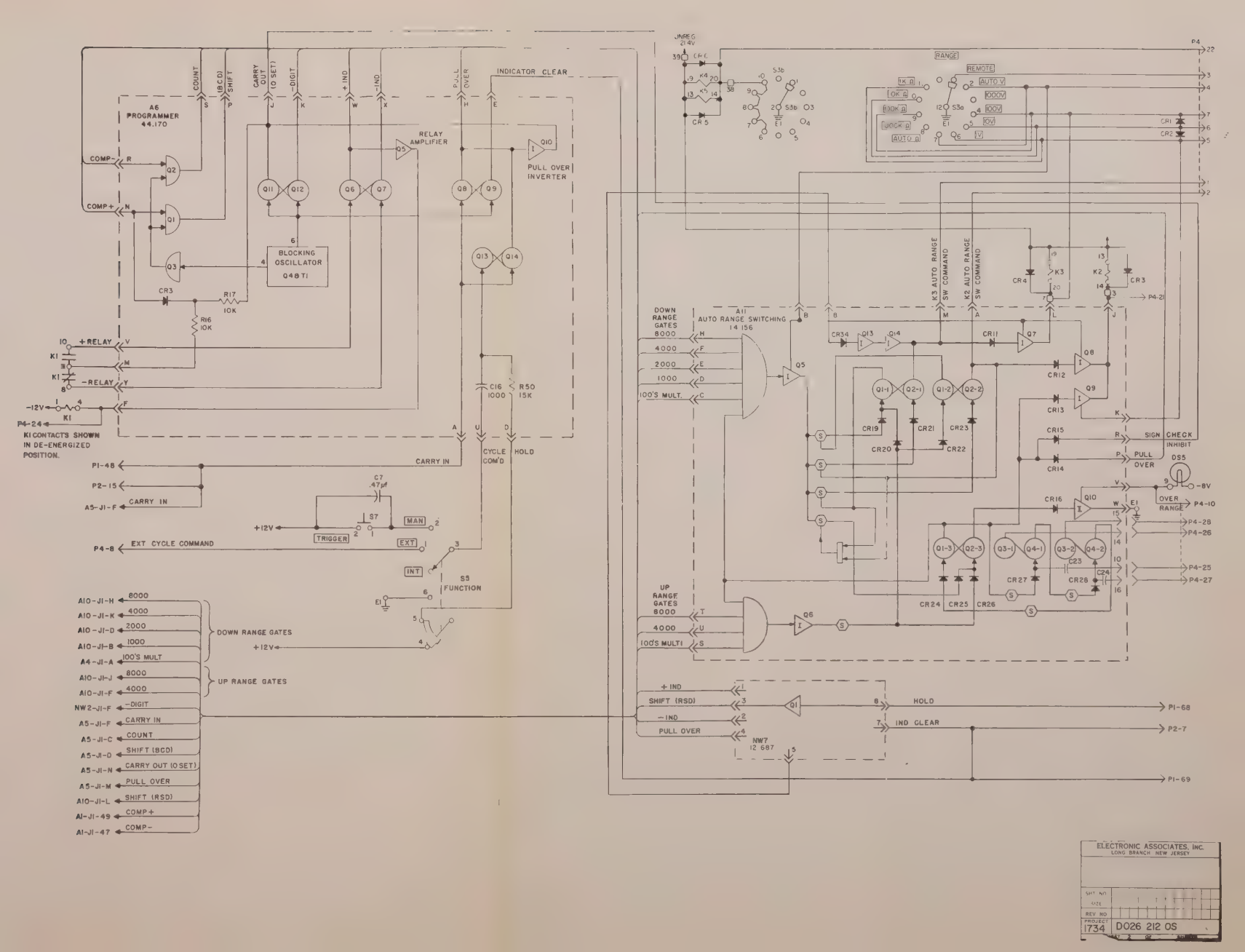


51.080-1 Readout Storage Decade (A10)


NOTES
1 UNLESS OTHERWISE SPECIFIED.
ALL TRANSISTORS ARE 8686 032 0
ALL RESISTORS ARE ±10% TOLERANCE, 1/2 WATT.
ALL DIODES ARE EAI 614 043 0
BINARY CODED OUTPUTS
BCD 1' 10,000'S
-8V
R56 1.2K
Q9
Q10
R54 10K
R55 5.6K
R50 5.6K
CR35
CR49
1'
2'
4'
8'
2
4
9
7
R53 3.3K
R40 3.3K
R52 3.3K
R34 1.2K
R35 1.2K
R36 1.2K
R37 2K
R38 1.2K
R39 1.2K
R41 1.2K
R42 1.2K
R43 1.2K
R44 1.2K
R45 1.2K
R46 1.2K
R47 1.2K
R48 1.2K
CR9
CR10
CR11
CR12
CR13
CR14
CR15
CR16
CR17
CR18
CR19
CR20
CR21
CR22
CR23
CR24
CR25
CR26
CR27
CR28
CR29
CR30
CR31
CR32
CR33
CR36
CR37
CR38
CR39
CR40
CR41
CR42
CR43
CR44
CR45
CR46
CR47
CR48
CR50
CR51
CR52
CR53
CR54
CR55
CR56
CR59
CR60
CR61
CR62
R33 1.2K
Q22 2N321
Q21 2N321
Q11 2N321
Q12 2N321
Q13 2N321
Q14 2N321
Q15 2N321
Q16 2N321
Q17 2N321
Q18 2N321
Q19 2N321
Q20 2N321
22 0'
2 1'
P 0
R 1
S 2
T 3
U 4
V 5
W 6
X 7
Y 8
Z 9
R49 2.7 1W
M ±GRD
DIGITAL OUTPUTS
A
-8V
R1 3.3K
R2 3.3K
R3 10K
R4 10K
R5 10K
R6 10K
R7 22K
R8 22K
CR1
CR2
Q1
Q2
B
L
C
SHIFT
R9 3.3K
R10 3.3K
R11 10K
R12 10K
R13 10K
R14 10K
R15 22K
R16 22K
CR3
CR4
Q3
Q4
D
E
SHIFT
R17 3.3K
R18 3.3K
R19 10K
R20 10K
R21 10K
R22 10K
R23 22K
R24 22K
CR5
CR6
Q5
Q6
K
F
SHIFT
R25 3.3K
R26 3.3K
R27 10K
R28 10K
R29 10K
R30 10K
R31 22K
R32 22K
CR7
CR8
Q7
Q8
H
J
SHIFT
(1)
(2)
(4)
8)
BINARY CODED INPUTS
ELECTRONIC ASSOCIATES INC
LONG BRANCH, NEW JERSEY
SHT NO
SIZE
REV NO
D051 080 05

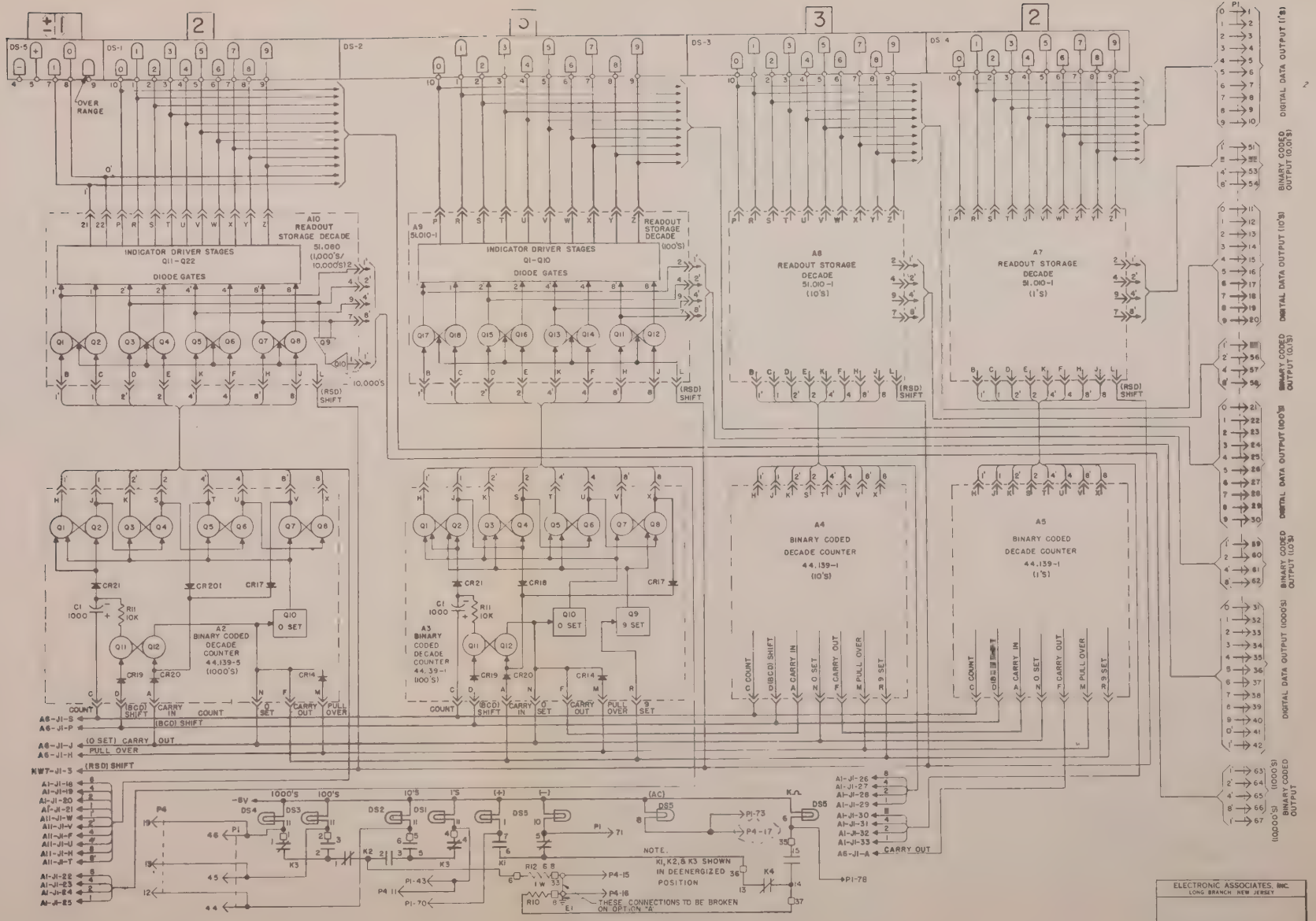


12.722 Reference Amplifier Network (NW6)



ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

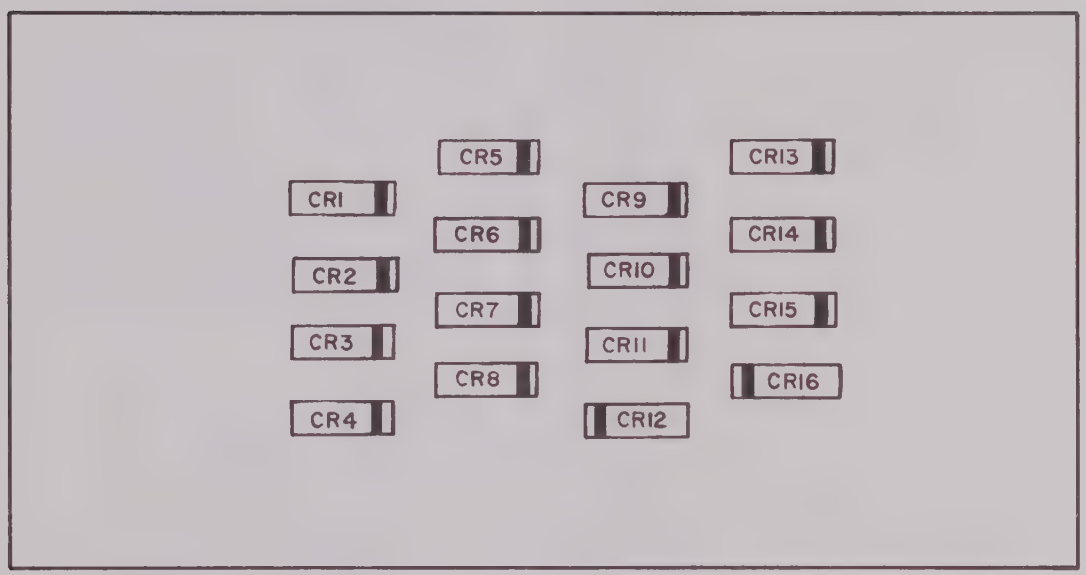
SHT NO
SIZE
REV NO
PROJECT 1734
D026 212 05



ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

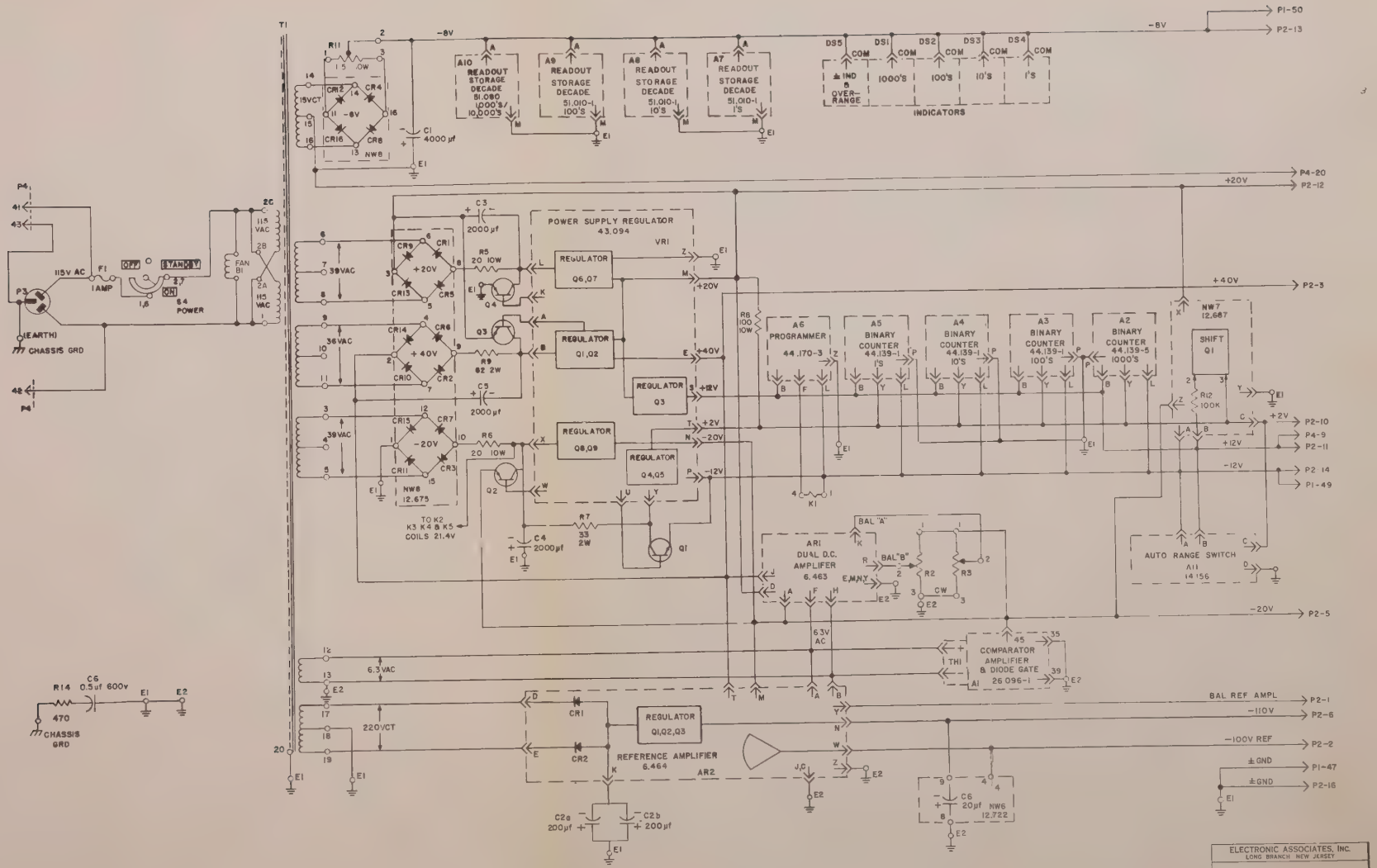
SHT NO	
SIZE	
REV NO	
PROJECT 1734	D026 212 05

SHEET A OF [illegible] SHEETS



12.675 Rectifier Network (NW8)

NOTES:
1. E1 IS ±GRD
E2 IS HIGH QUALITY GRD.



ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT NO. 52E
REV NO.
PROJECT 1734 D026 212 OS
SHEET 4 OF SHEETS

INDEX

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3		Component Placement Keysheet
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5	A1	Comp. & Diode Gate 26.096-3
6	A2;A3	BCD(1000's) 44.139-5; BCD (100's) 44.139-1
7	A4;A5	BCD(10's) 44.139-1; BCD(1's) 44.139-1
8	A6	Programmer 44.170-3
9	A7	RSD(1's) 51.010-1
10	A8	RSD(10's) 51.010-1
11	A9	RSD(100's) 51.010-1
12	A10	RSD(1000's/10,000's) 51.080-1
13	A11	Auto. Range Switch 14.156
14	DS1-DS3	Ind. Display
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17	P1	Printer Connector
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19	P4	Programming Connector
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22	NW7	Misc Network 12,687
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24	S4,S5,S7,S8	Pwr SW; Function SW; Gnd SW; Trigger PB SW; Input "Z" SW
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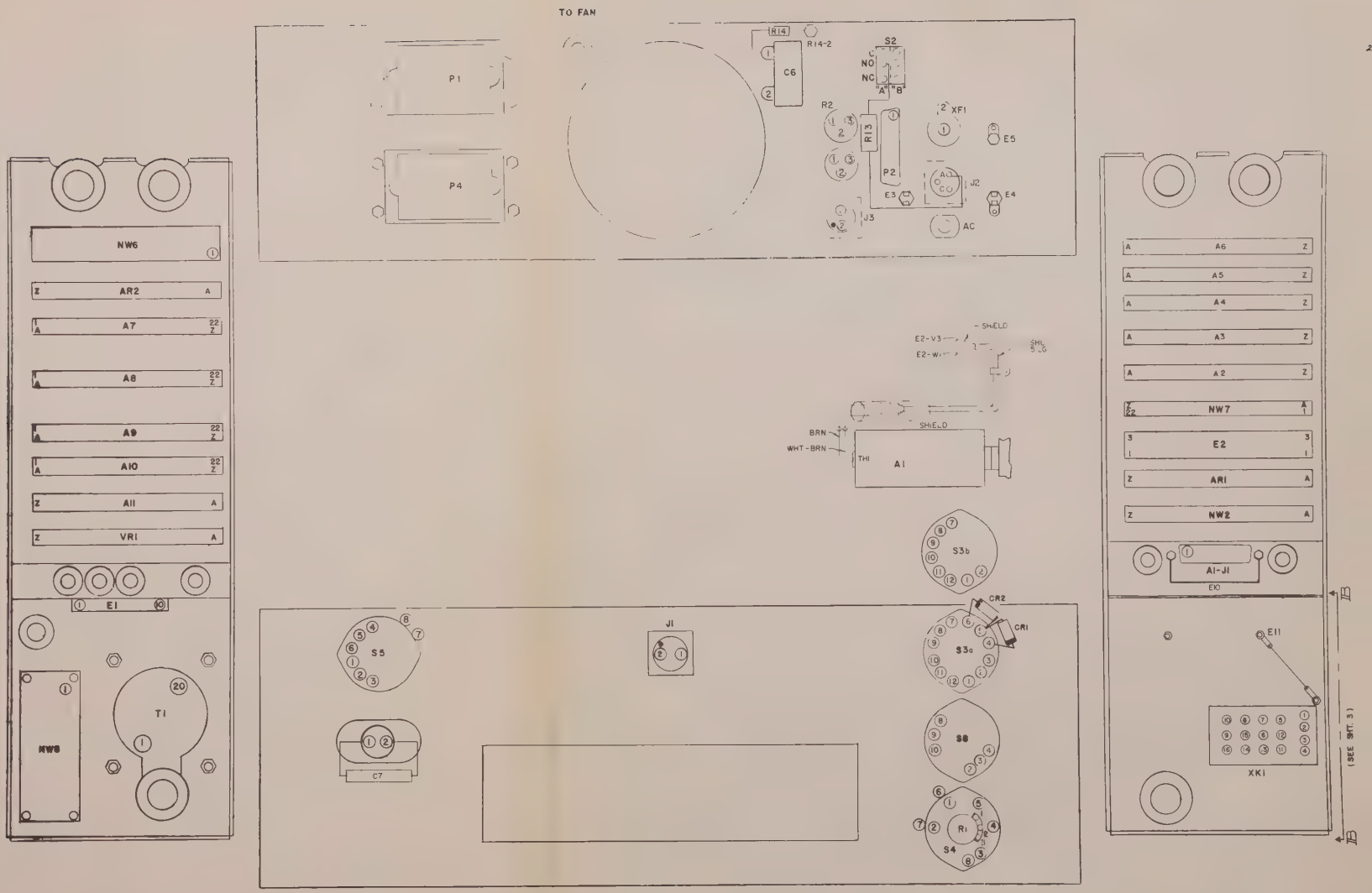
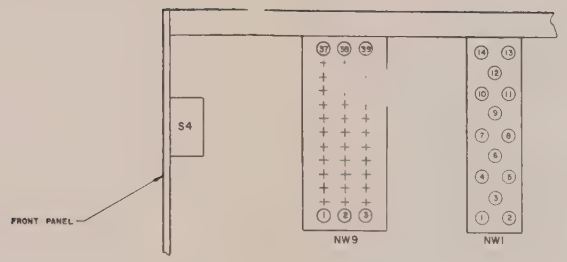
26	E2-E9	HQ Gnd & Misc. Terms
27	T1; J1-J3	Pwr XFMR, Input & Ref Connectors
28	XK1	Sign SW RY
29	NW9	Range Switching Relays
30	R1-3;5,6, 8,11,14,	Zero Set; Bal Pot "B", Balpot "A"; Pwr Supply Resistors; Lamp Supply Res.
31	XQ1-4; XF1	VR Transistors; Supply Fuse
32	C1-C6; B1;	Capacitors; Fan:
33	VR1	PS Regulator 43.094-1

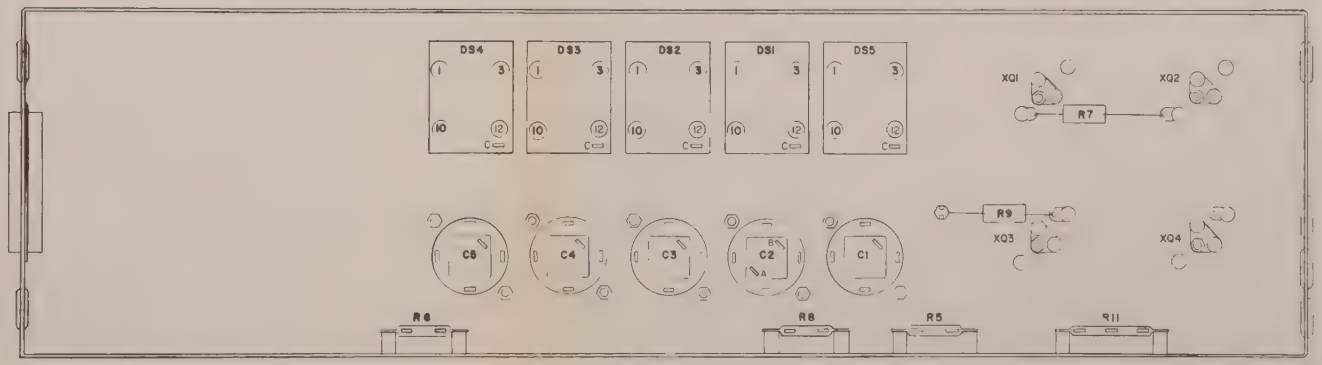
ELECTRONIC ASSOCIATES, INC LONG BRANCH NEW JERSEY	
WIRING AUTO RANGE SWITCHING TDVOM (SERIES 5101 - TDVOM)	
SHT. NO	
SIZE	
REV. NO	
PROJECT 1734	B 026 212 0W
SHEET 1 OF 34 SHEETS	



ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
WIRING	
AUTO RANGE SWITCHING TDVOM (SERIES 5101 – TDVOM)	
SHT NO	
SIZE	
REV NO	
PROJECT 1734	D025 212 0W



VIEW B-B



VIEW A-A

ELECTRONIC ASSOCIATES, INC. LONG BRANCH NEW JERSEY	
SHT NO	
SIZE	
REV NO	
PROJECT 1734	D026 212 0W

Asterisk(*) in harness column denotes cases where this wiring diagram will not agree with the wiring diagram of the harness spec'd.

AR1-J1 DUAL DC AMPLIFIER 6.463 and AR2-J1 REFERENCE AMPLIFIER 6.464						
HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484;18.482	AR1-J1-A	-20V Output	XQ2-3	WHT-VIO-RED 22	A1-J1-45	WHT-VIO-RED 22
18.434	A	-20V Output	NW7-J1-Z	WHT-VIO-RED 22		
___,18.483	B	Ampl. Out "A"	NW7-J1-19 E2-A1	BUS BLK 20	XK1-16	COAX 2
	C					
18.484	D	+20V Output	VR1-J1-M	WHT-RED-ORN 22	NW7-J1-X	WT-RED-ORN 22
18.483	E	± Grd "B" (DC Ampl)	E2-D1	BLK 16		
18.483	F	Vib Drive (6.3V AC)	T1-12	SHU 1		
	H	Vib Drive Ret.	T1-13	SHU 1 Shield		
18.484	J	+40V Output	C5 (+)	WHT-RED-RED 22		
18.482	K	Bal Pot "A"	R3-2	YEL		
18.482	L	Bal "A" (DC Ampl)	P2-18	YEL		
18.483	M	H.Q. Grd "B"(DC Ampl)	E2-B2	BLK-WHT 16		
18.483	N	H.Q. Grd "A" (DC Ampl)	E2-B1	BLK-WHT 16		
18.482	P	Bal "B" DC Ampl	P2-17	YEL		
18.482	R	Bal Pot "B"	R2-2	YEL		
18.483	S	Ampl Input "A"	NW7-J1-21	BUS		
	T	Key				
	U	Chassis Grd	AR1-J1-Y	BUS		
___,*18.483	V	Ampl Input "B" Coax 3 Shield	NW7-J1-10 E2-H1	BUS BLK 20	NW9-13	COAX 3
	W					
	X					
18.483	Y	± Grd "A" (DC Ampl)	E2-D2	BLK 16	AR1-J1-U	BUS
	AR1-J1-Z	Amol Out "B"	NW7-J1-9	BUS		
18.483	AR2-J1-A	6.3V AC (Vib Drive)	T1-12	SHU 2		
	B	Vib Drive Ret. (± Grd)	T1-13	SHU 2 Shield		
	C	± Grd	AR2-J1-J	BUS		
18.484	D	220V CT	T1-17	WHT 22		
18.484	E	220V CT	T1-19	WHT 22		
	F	Key				
	H	F.B. Resistor	NW6-3	BUS		
18.483	J	± Grd	E2-G2	BLK 16	AR2-J1-C	BUS
18.484	K	Filter	C2 (-)	WHT 22		
	L	Input	NW6-1	BUS		
18.484	M	-20V	VR1-J1-N	WHT-VIO-RED 22		
	N	-110V	NW6-7	BUS		
	P	Zener Input	NW6-2	BUS		
	R					
18.482	S	Zener Check 9.4V	P2-4	YEL		
18.484	T	+40V	VR1-J1-E	WHT-RED-RED 22	P2-3	WHT-RED-RED 22
	U					
	V					
	W	-100V Ref.	NW6-4	BUS		
	X					
18.482	Y	Bal.	P2-1	BLK		
18.483	AR2-J1-Z	H.Q. Grd	E2-C1	BLK-WHT 16		

ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 OW
SHEET 4 OF SHEETS	

3

A1-J1 COMPARATOR and DIODE GATE 26.096-3

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A1-J1-1	Sum Junction	NW2-J1-E	COAX 31		
18.482	2	8000 In	V	RED		
	3	4000	U	ORN		
	4	2000	T	YEL		
	5	1000	S	GRN		
	6	800	R	BLU		
	7	400	P	VIO		
	8	200	N	GY		
	9	100	M	WHT		
	10	80	D	BLK		
	11	40	C	BRN		
	12	20	B	RED		
	13	10	A	WHT 20 *		
	14	8	Z	BLK 20 *		
	15	4	Y	BRN 20 *		
	16	2	X	RED 20 *		
	17	1 In	NW2-J1-W	ORN 20 *		
	18	8000 Gate	A2-J1-X	GY		
	19	4000	A2-J1-U	WHT		
	20	2000	A2-J1-S	BLK		
	21	1000	A2-J1-J	BRN		
	22	800	A3-J1-X	RED		
	23	400	A3-J1-U	ORN		
	24	200	A3-J1-S	YEL		
	25	100	A3-J1-J	GRN		
	26	80	A4-J1-X	BLU		
	27	40	A4-J1-U	VIO		
	28	20	A4-J1-S	GY		
	29	10	A5-J1-J	WHT		
	30	8	A5-J1-X	BLK		
	31	4	A4-J1-J	BRN		
	32	2	A5-J1-S	RED		
	33	1 Gate	A5-J1-J	ORN		
	34	Zero Set	R1-2	GRN		
	35	H.Q. Grd	E2-R2	BLK-WHT 20		
	36					
	37					
	38					
	39	± Grd	E2-R3	BLK 20		
	40					
	41					
	42					
	43					
	44					
	45	-20V	AR1-J1-A	WHT-VIO-RED 22		
	46					
	47	Comparator (-) Out	A6-J1-R	COAX 4		
	48					
18.482	49	Comparator (+) Out	A6-J1-N	COAX 5		
	A1-J1-50					

*Run as direct as possible in separate cable

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV NO.	
PROJECT 1734	B 026 212 OW

SHEET 5 OF SHEETS

A2-J1 BINARY CODED DECADE COUNTER 44.139-5 (1000's) A3-J1 BINARY CODED DECADE COUNTER 44.139-1 (100's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A2-J1-A	Carry In	A2-J1-N	BUS		
18.484	B	+12V	A3-J1-B	BUS	NW7-J1-B	WHT-RED-ORN 22
	C	Count	A3-J1-C	BUS		
	D	Shift	A3-J1-D	BUS		
	E					
18.482	F	Carry Out	A3-J1-A	YEL	A3-J1-R	YEL
	H	1'	A10-J1-B	ORN		
	J	1	A10-J1-C	BRN	A1-J1-21	BRN
18.482	K	2'	A10-J1-D	RED		
18.484	L	-12V	A3-J1-L	BUS	NW7-J1-A	WHT-VIO-ORN 22
	M	Pull Over	A3-J1-M	BUS	NW7-J1-4	BUS
	N	Zero Set	A3-J1-N	BUS	A2-J1-A	BUS
18.483	P	± Grd	A3-J1-P	BUS	C4-(+)	BLK 16
	R					
18.482	S	2	A10-J1-E	BLK	A1-J1-20	BLK
18.482	T	4'	A10-J1-K	GRN		
	U	4	A10-J1-F	WHT	A1-J1-19	WHT
	V	8'	A10-J1-H	YEL		
	W	Key				
18.482	X	8	A10-J1-J	GY	A1-J1-18	GY
18.484	Y	+2V	A3-J1-Y	BUS	NW7-J1-C	WHT-RED-BLU 22
	A2-J1-Z					

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	A3-J1-A	Carry In	A2-J1-F	YEL		
	B	+12V	A2-J1-B	BUS	A4-J1-B	BUS
	C	Count	A2-J1-C	BUS	A4-J1-C	BUS
	D	Shift	A2-J1-D	BUS	A4-J1-D	BUS
	E					
18.482	F	Carry Out	A4-J1-A	YEL		
	H	1'	A9-J1-B	BRN		
	J	1	A9-J1-C	GRN	A1-J1-25	GRN
18.482	K	2'	A9-J1-D	BLU		
	L	-12V	A2-J1-L	BUS	A4-J1-L	BUS
	M	Pull Over	A2-J1-M	BUS	A4-J1-M	BUS
	N	Zero Set	A2-J1-N	BUS	A4-J1-N	BUS
	P	± Grd	A2-J1-P	BUS	A4-J1-P	BUS
18.482	R	Nine Set	A4-J1-R	BUS	A2-J1-F	YEL
	S	2	A9-J1-E	YEL	A1-J1-24	YEL
	T	4'	A9-J1-K	GY		
	U	4	A9-J1-F	ORN	A1-J1-23	ORN
	V	8'	A9-J1-H	VIO		
	W	Key				
18.482	X	8	A9-J1-J	RED	A1-J1-22	RED
	Y	+2V	A2-J1-Y	BUS	A4-J1-Y	BUS
	A3-J1-Z					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 OW
SHEET 6 OF SHEETS	

A4-J1 BINARY CODED DECADE COUNTER 44.139-1 (10's) A5-J1 BINARY CODED DECADE COUNTER 44.139-1 (1's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	A4-J1-A	Carry In	A3-J1-F	YEL	A11-J1-S	YEL
	B	+12V	A3-J1-B	BUS	A5-J1-B	BUS
	C	Count	A3-J1-C	BUS	A5-J1-C	BUS
	D	Shift	A3-J1-D	BUS	A5-J1-D	BUS
	E					
18.482	F	Carry Out	A5-J1-A	YEL		
	H	1'	A8-J1-B	BRN		
	J	1	A8-J1-C	WHT	A1-J1-29	WHT
18.482	K	2'	A8-J1-D	RED		
	L	-12V	A3-J1-L	BUS	A5-J1-L	BUS
	M	Pull Over	A3-J1-M	BUS	A5-J1-M	BUS
	N	Zero Set	A3-J1-N	BUS	A5-J1-N	BUS
	P	± Grd	A3-J1-P	BUS	A5-J1-P	BUS
	R	Nine Set	A3-J1-R	BUS	A5-J1-R	BUS
18.482	S	2	A8-J1-E	GY	A1-J1-28	GY
	T	4'	A8-J1-K	GRN		
	U	4	A8-J1-F	VIO	A1-J1-27	VIO
	V	8'	A8-J1-H	ORN		
	W	Key				
18.482	X	8	A8-J1-J	BLU	A1-J1-26	BLU
	Y	+2V	A3-J1-Y	BUS	A5-J1-Y	BUS
	A4-J1-Z					
18.482	A5-J1-A	Carry In	A4-J1-F	YEL		
	B	+12V	A4-J1-B	BUS	A6-J1-B	BUS
18.482	C	Count	A4-J1-C	BUS	A6-J1-S	YEL
18.482	D	Shift	A4-J1-D	BUS	A6-J1-P	YEL
	E					
18.482	F	Carry Out	A6-J1-A	YEL		
	H	1'	A7-J1-B	VIO		
	J	1	A7-J1-C	ORN	A1-J1-33	ORN
18.482	K	2'	A7-J1-D	BLU		
	L	-12V	A4-J1-L	BUS	A6-J1-L	BUS
18.482	M	Pull Over	A4-J1-M	BUS	A6-J1-H	YEL
18.482	N	Zero Set	A4-J1-N	BUS	A6-J1-J	YEL
	P	± Grd	A4-J1-P	BUS		
	R	Nine Set	A4-J1-R	BUS		
18.482	S	2	A7-J1-E	RED	A1-J1-32	RED
	T	4'	A7-J1-K	YEL		
	U	4	A7-J1-F	BRN	A1-J1-31	BRN
	V	8'	A7-J1-H	GRN		
	W	Key				
18.482	X	8	A7-J1-J	BLK	A1-J1-30	BLK
18.484	Y	+2V	A4-J1-Y	BUS	P2-10	WHT-RED-BLU 22
	A5-J1-Z					

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 7 OF SHEETS

A6-J1 PROGRAMMER 44.170-3

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	A6-J1-A	Carry In	A5-J1-F	YEL	P2-15	YEL
18.484	B	+12V	A5-J1-B	SD-BUS	P2-11	WHT-RED-ORN 22
	C	Key				
18.482	D	Hold	S5-5	YEL		
	E	Ind Clear	NW7-J1-7	YEL	P2-7	YEL
	F	Relay Coil	XK1-4	BLU	P4-24	BLUE 20
	H	Pull Over	A5-J1-M	YEL	A11-J1-P	YEL
	J	Carry Out	A5-J1-N	YEL	A11-J1-R	YEL
18.482	K	-1 Digit	NW2-J1-F	YEL		
18.484	L	-12V	A5-J1-L	SD-BUS	VR1-J1-P	WHT-VIO-ORN 22
18.482	M	Relay Arm	XK1-9	YEL		
	N	Comparator (+)	A1-J1-49	Coax 5		
		Coax 5 Shield	A6-J1 Z	BLK 20		
	P	Shift	A5-J1-D	YEL		
	R	Comparator (-)	A1-J1 47	Coax 4		
		Coax 4 Shield	A6-J1-Z	BLK 20		
	S	Count	A5-J1-C	YEL		
	T					
	U	Cycle Command	S5-3	YEL		
	V	(+) Relay	XK1-10	YEL		
	W	(+) Ind.	NW7-J1-1	YEL		
	X	(-) Ind.	NW7-J1-2	YEL		
18.482	Y	(-) Relay	XK1-8	YEL		
18.483	A6-J1-Z	± Grd	E1-A5	BLK 16	Coax 4 Shield	BLK 20
	Z	± Grd	Coax 5 Shield	BLK 20		

N

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 OW

SHEET 8 OF SHEETS

A7-J1 READOUT STORAGE DECADE 51.010-1 (1's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	A7-J1-A	-8V	A8-J1-A	BUS	P1-50	WHT-VIO-BLU 20
18.482	B	1' Input(Binary Coded)	A5-J1-H	VIO		
	C	1	A5-J1-J	ORN		
	D	2'	A5-J1-K	BLU		
	E	2	A5-J1-S	RED		
	F	4	A5-J1-U	BRN		
	H	8'	A5-J1-V	GRN		
	J	8	A5-J1-X	BLK		
18.482	K	4' Input(Binary Coded)	A5-J1-T	YEL		
	L	Shift	A8-J1-L	BUS		
	M	± Grd	A8-J1-M	BUS		
	N	Key				
18.481	P	0 Output(Digital)	DS4-10	BLK	P1-1	BLK
	R	1 Output	DS4-1	BRN	P1-2	BRN
	S	2 Output	DS4-2	RED	P1-3	RED
	T	3 Output	DS4-3	ORN	P1-4	ORN
	U	4 Output	DS4-4	YEL	P1-5	YEL
	V	5 Output	DS4-5	GRN	P1-6	GRN
	W	6 Output	DS4-6	BLU	P1-7	BLU
	X	7 Output	DS4-7	VIO	P1-8	VIO
	Y	8 Output	DS4-8	GY	P1-9	GY
18.481	A7-J1-Z	9 Output (Digital)	DS4-9	WHT	P1-10	WHT
	A7-J1-1					
18.481	2	1'(Binary Coded Outputs)	P1-51	WHT-RED		
	3					
	4	2'	P1-52	WHT-BRN		
	5					
	6					
	7	8'	P1-54	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs)	P1-53	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	15					
	17					
	18					
	19					
	20					
	21					
	A7-J1-22					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 9 OF SHEETS

A8-J1 READOUT STORAGE DECADE 51.010-1 (10's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A8-J1-A	-8V	A7-J1-A	BUS	A9-J1-A	BUS
18.482	B	1' Input(Binary Coded)	A4-J1-H	BRN		
	C	1	A4-J1-J	WHT		
	D	2'	A4-J1-K	RED		
	E	2	A4-J1-S	GY		
	F	4	A4-J1-U	VIO		
	H	8'	A4-J1-V	ORN		
	J	8	A4-J1-X	BLU		
18.482	K	4' Input (Binary Coded)	A4-J1-T	GRN		
	L	Shift	A7-J1-L	BUS	A9-J1-L	BUS
18.483	M	± Grd	T1-15	BLK 16	A7-J1-M	BUS
	N	Key				
18.481	P	0 Output(Digital)	DS3-10	BLK	P1-11	BLK
	R	1 Output	DS3-1	BRN	P1-12	BRN
	S	2 Output	DS3-2	RED	P1-13	RED
	T	3 Output	DS3-3	ORN	P1-14	ORN
	U	4 Output	DS3-4	YEL	P1-15	YEL
	V	5 Output	DS3-5	GRN	P1-16	GRN
	W	6 Output	DS3-6	BLU	P1-17	BLU
	X	7 Output	DS3-7	VIO	P1-18	VIO
	Y	8 Output	DS3-8	GY	P1-19	GY
18.481	A8-J1-Z	9 Output (Digital)	DS3-9	WHT	P1-20	WHT
	A8-J1-1					
18.481	2	1'(Binary Coded Outputs)	P1-55	WHT-RED		
	3					
	4	2'	P1-56	WHT-BRN		
	5					
	6					
	7	8'	P1-58	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs)	P1-57	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	A8-J1-22					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 OW

SHEET 10 OF SHEETS

A9-J1 READOUT STORAGE DECADE 51.010-1 (100's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	A9-J1-A	-8V	A8-J1-A	BUS	A10-J1-A	-BUS
18.482	B	1' Input(Binary Coded)	A3-J1-H	BRN		
	C	1	A3-J1-J	GRN		
	D	2'	A3-J1-K	BLU		
	E	2	A3-J1-S	YEL		
	F	4	A3-J1-U	ORN		
	H	8'	A3-J1-V	VIO		
	J	8	A3-J1-X	RED		
18.482	K	4' Input(Binary Coded)	A3-J1-T	GY		
	L	Shift	A8-J1-L	BUS	A10-J1-L	BUS
	M	± Grd	A10-J1-M	BUS		
	N	Key				
18.481	P	0 Output (Digital)	DS2-10	BLK	P1-21	BLK
	R	1 Output	DS2-1	BRN	P1-22	BRN
	S	2 Output	DS2-2	RED	P1-23	RED
	T	3 Output	DS2-3	ORN	P1-24	ORN
	U	4 Output	DS2-4	YEL	P1-25	YEL
	V	5 Output	DS2-5	GRN	P1-26	GRN
	W	6 Output	DS2-6	BLU	P1-27	BLU
	X	7 Output	DS2-7	VIO	P1-28	VIO
	Y	8 Output	DS2-8	GY	P1-29	GY
18.481	A9-J1-Z	9 Output (Digital)	DS2-9	WHT	P1-30	WHT
	A9-J1-1					
18.481	2	1'(Binary Coded Outputs	P1-59	WHT-RED		
	3					
	4	2'	P1-60	WHT-BRN		
	5					
	6					
	7	8'	P1-62	WHT-VIO		
	8					
18.481	9	4'(Binary Coded Outputs	P1-61	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	A9-J1-22					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 0W 1
SHEET 11 OF 6 SHEETS

A10-J1 READOUT STORAGE DECADE 51.080-1 (1000's)/(10,000's)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	A10-J1-A	-8V	A9-J1-A	BUS	R11-2	WHT-VIO-BLU 20
18.482	B	1 Input (Binary Coded)	A2-J1-H	ORN	A11-J1-D	ORN
	C	1	A2-J1-J	BRN		
	D	2'	A2-J1-K	RED	A11-J1-E	RED
	E	2	A2-J1-S	BLK		
	F	4	A2-J1-U	WHT	A11-J1-U	WHT
	H	8'	A2-J1-V	YEL	A11-J1-H	YEL
	J	8	A2-J1-X	GY	A11-J1-T	GY
	K	4' Input (Binary Coded)	A2-J1-T	GRN	A11-J1-F	GRN
18.482	L	Shift	A9-J1-L	BUS	NW7-J1-3	YEL
18.483	M	± Grd	A9-J1-M	BUS	A11-J1-W	BLK 16
	N	Key				
18.481	P	0 Output (Digital)	DS1-10	BLK	P1-31	BLK
	R	1 Output	DS1-1	BRN	P1-32	BRN
	S	2 Output	DS1-2	RED	P1-33	RED
	T	3 Output	DS1-3	ORN	P1-34	ORN
	U	4 Output	DS1-4	YEL	P1-35	YEL
	V	5 Output	DS1-5	GRN	P1-36	GRN
	W	6 Output	DS1-6	BLU	P1-37	BLU
	X	7 Output	DS1-7	VIO	P1-38	VIO
	Y	8 Output	DS1-8	GY	P1-39	GY
18.481	A10-J1-Z	9 Output (Digital)	DS1-9	WHT	P1-40	WHT
18.481	A10-J1-1	1' (10,000's)	P1-67	YEL		
	2	1' (Binary Coded Output)	P1-63	WHT-RED		
	3					
	4	2'	P1-64	WHT-BRN		
	5					
	6					
	7	8'	P1-66	WHT-VIO		
	8					
	9	4' (Binary Coded Output)	P1-65	WHT-GY		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21	1' (Digital Output)	DS5-12	WHT-VIO	P1-42	WHT-VIO
18.481	A10-J1-22	0' (Digital Output)	DS5-3	ORN	P1-41	ORN
		—				

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 0W
SHEET 12 OF SHEETS

A11-J1 AUTOMATIC RANGE SWITCH 14.156

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	A11-J1-A	A.R.S. Com (K2)	P4-2	RED		
18.481;*18.481	B	Auto	P4-4	YEL	S3a-2	YEL
	C	100's Mult(Down Range)	A11-J1-S	BUS		
18.482	D	1000 Gate	A10-J1-B	ORN		
	E	2000 Gate	A10-J1-D	RED		
	F	4000 Gate	A10-J1-K	GRN		
18.482	H	8000 Gate (Down Range)	A10-J1-H	YEL		
*18.481;18.481	J	Relay Drive (K2)	NW9-3	BLU	P4-21	BLUE 20
18.481;*18.481	K	Manual Protects	P4-5	GRN	S3a-6	GRN
18.481;*18.481	L	K3 Relay Drive	P4-7	BLU	S3a-4	BLU
18.481	M	A.R.S. Com (K3)	P4-1	BRN		
	N	Key				
18.482	P	Pull Over	A6-J1-H	YEL		
	R	Sign Check Inhibit	A6-J1-J	YEL		
	S	100's Mult Out(Up Rge)	A4-J1-A	YEL	A11-J1-C	BUS
	T	8000 Gate (Up Range)	A10-J1-J	GY		
18.482	U	4000 Gate (Up Range)	A10-J1-F	WHT		
18.481	V	Over Range Ind	DS5-11	WHT/BRN	P4-10	WHT/BRN
18.483	W	± Grd	T1-15	BLK 16	A10-J1-M	BLK 16
18.484	X	+ 2V	VR1-J1-T	WHT-RED-BLU 22		
	Y	+12V	VR1-J1-S	WHT-RED-ORN 22		
18.484	A11-J1-Z	-12V	VR1-J1-P	WHT-VIO-ORN 22	P1-49	WHT-VIO-ORN 22
	A11-J1-1					
	2					
	3					
	4					
	5					
	6					
	7					
18.482	8	ARS Com (K2)	NW7-J1-5	RED		
	9					
18.481	10	AC Mono Cap	P4-25	COAX 27		
	11					
	12					
	13					
18.481	14	AC Mono Cap	P4-26	COAX 28		
18.481	15	AC Mono Cap	P4-28	COAX 30		
18.481	16	AC Mono Cap	P4-27	COAX 29		
	17					
	18					
	19					
	20					
	21					
	A11-J1-22					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1934 B 026 212 0W
SHEET 13 OF SHEETS

DS1 - DS3 (INDICATOR DISPLAY UNITS)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	DS1-1	1(Digital Output)	A10-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10Digital Output)	A10-J1-P	BLK		
*18.481	11	Dec. Ind (1V)	NW9-4	WHT-BRN	P1-43	WHT-BRN
	12					
	DS1-COM	Ind Com	DS5-COM	BUS 20	DS2-COM	BUS 20
18.481	DS2-1	1(Digital Output)	A9-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10(Digital Output)	A9-J1-P	BLK		
*18.481	11	Dec. Ind (10V)	NW9-5	WHT-RED	P1-44	WHT-RED
	12					
18.481	DS2-COM	Ind Com	DS1-COM	BUS 20	DS3-COM	BUS 20
18.481	DS3-1	1(Digital Output)	A8-J1-R	BRN		
	2	2	S	RED		
	3	3	T	ORN		
	4	4	U	YEL		
	5	5	V	GRN		
	6	6	W	BLU		
	7	7	X	VIO		
	8	8	Y	GY		
	9	9	Z	WHT		
	10	10(Digital Output)	A8-J1-P	BLK		
*18.481	11	Dec. Ind (100V)	NW9-2	WHT-VIO	P1-45	WHT-VIO
	12					
	DS3-COM	Ind Com	DS2-COM	BUS 20	DS4-COM	BUS 20

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 14 OF SHEETS

P1 PRINTER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P1-1	0 Digital Output	A7-J1-P	BLK		
	2	1	R	BRN		
	3	2	S	RED		
	4	3	T	ORN		
	5	4	U	YEL		
	6	5	V	GRN		
	7	6	W	BLU		
	8	7	X	VIO		
	9	8	Y	GY		
	10	9	A7-J1-Z	WHT		
	11	0	A8-J1-P	BLK		
	12	1	R	BRN		
	13	2	S	RED		
	14	3	T	ORN		
	15	4	U	YEL		
	16	5	V	GRN		
	17	6	W	BLU		
	18	7	X	VIO		
	19	8	Y	GY		
	20	9	A8-J1-Z	WHT		
	21	0	A9-J1-P	BLK		
	22	1	R	BRN		
	23	2	S	RED		
	24	3	T	ORN		
	25	4	U	YEL		
	26	5	V	GRN		
	27	6	W	BLU		
	28	7	X	VIO		
	29	8	Y	GY		
	30	9	A9-J1-Z	WHT		
	31	0	A10-J1-P	BLK		
	32	1	R	BRN		
	33	2	S	RED		
	34	3	T	ORN		
	35	4	U	YEL		
	36	5	V	GRN		
	37	6	W	BLU		
	38	7	X	VIO		
	39	8	Y	GY		
18.481	P1-40	9 (Digital Output)	A10-J1-Z	WHT		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 16 OF SHEETS

P1 CONT'D PRINTER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P1-41	0' Digital Out (1,000's)	A10-J1-22	ORN		
	42	1' Digital Out (1,000's)	A10-J1-21	WHT/VIO		
	43	Dec. Ind (1V)	DS1-11	WHT-BRN	P4-11	WHT/BRN
	44	Dec. Ind (10V)	DS2-11	WHT-RED	P4-12	WHT/RED
	45	Dec. Ind (100V)	DS3-11	WHT-VIO	P4-13	WHT/VIO
	46	Dec. Ind (1000V)	DS4-11	WHT-GY	P4-19	WHT/GY
	47	± Grd	E1-A3	BLK 16	P2-16	BLK 20
18.481	48	Carry In	P2-15	YEL		
18.484	49	-12V	A11-J1-Z	WHT-VIO-ORN 22	P2-14	WHT-VIO-ORN 22
18.484	50	-8V	A7-J1-A	WHT-VIO-BLU 20	P2-13	WHT-VIO-BLU 20
18.481	51	1'(1's) (BinaryCodeOutp)	A7-J1-2	WHT-RED		
	52	2'(1's)	A7-J1-4	WHT-BRN		
	53	4'(1's)	A7-J1-9	WHT-GY		
	54	8'(1's)	A7-J1-7	WHT-VIO		
	55	1'(10's)	A8-J1-2	WHT-RED		
	56	2'(10's)	A8-J1-4	WHT-BRN		
	57	4'(10's)	A8-J1-9	WHT-GY		
	58	8'(10's)	A8-J1-7	WHT-VIO		
	59	1'(100's)	A9-J1-2	WHT-RED		
	60	2'(100's)	A9-J1-4	WHT-BRN		
	61	4'(100's)	A9-J1-9	WHT-GY		
	62	8'(100's)	A9-J1-7	WHT-VIO		
	63	1'(1000's)	A10-J1-2	WHT-RED		
	64	2'(1000's)	A10-J1-4	WHT-BRN		
	65	4'(1000's)	A10-J1-9	WHT-GY		
	66	8'(1000's)	A10-J1-7	WHT-VIO		
	67	1'(10,000's) (BinCodeOtp)	A10-J1-1	YEL		
	68	Hold	NW7-J1-8	YEL		
	69	Ind Clear	P2-7	YEL		
	70	(+) Ind	DS5-1	BRN		
	71	(-) Ind	DS5-10	BLK		
	72	Over Range	P4-10	WHT/BRN		
18.481	73	AC Ind. Gnd.	P4-17	BLK 22		
	74					
	75					
	76					
	77					
18.481,18.511	P1-78	N.O. Arm (Ω Ind.)	DS5-6	BLU	NW9-35	BLU

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W
SHEET 17 OF SHEETS	

P2 TEST POINTS			P3 AC INPUT (LINE)			
			COLUMN 1		COLUMN 2	
HARN/CABLE	TERMINAL	FUNCTION	DESTINATION	WIRE	DESTINATION	WIRE
18.482	P2-1	Bal Ref Ampl	AR2-J1-Y	BLK		
18.484	2	-100V Ref	S2a-C	WHT-VIO 22		
18.484	3	+40V	AR2-J1-T	WHT-RED-RED 22		
18.482	4	9.4V Zen Chk	AR2-J1-S	YEL		
18.484	5	-20V	R2-1	WHT-VIO-RED 22		
18.484	6	-110V	NQ6-7	WHT 22		
18.482;18.481	7	Ind Clear	A6-J1-E	YEL	P1-69	YEL
18.483	8	Ampl Out "A"	NW7-J1-19	COAX 6		
18.483	9	Ampl Out "B"	NW7-J1-9	COAX 7		
18.484	10	+2V	A5-J1-Y	WHT-RED-BLU 22		
18.484	11	+12V	P4-9	WHT-RED-ORN 22	A6-J1-B	WHT-RED-ORN 22
	12	+20V	VR1-J1-M	WHT-RED-ORN 22		
	13	-8V	P1-50	WHT-VIO-BLU 20		
18.484	14	-12V	P1-49	WHT-VIO-ORN 22		
18.481;18.482	15	Carry In	P1-48	YEL	A6-J1-A	YEL
18.481	16	+ Grd	P1-47	BLK 20		
18.482	17	Bal " B" (DC Ampl)	AR1-J1-P	YEL		
18.482	18	Bal "A" (DC Ampl)	AR1-J1-L	YEL		
	19					
	20					
	21					
	22					
	23					
	24					
	P2-25					

*Note: Color Leads of Power Cord:
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Com)

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W
SHEET 18 OF SHEETS	

P4 PROGRAMMING

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.481	P4-1	A.R.S. Com (K3)	A11-J1-M	BRN		
18.481	2	A.R.S. Com (K2)	A11-J1-A	RED		
*18.481	3	Remote	S3a-1	ORN		
18.481	4	Auto	A11-J1-B	YEL		
18.481	5	1V Range	A11-J1-K	GRN		
*18.481	6	10V Range	S3a-5	VIO		
18.481	7	100V Range	A11-J1-L	BLU		
18.482	8	Ext Cycle Com	S5-1	GY		
18.484	9	+12V	P2-11	WHT-RED-ORN 22	VR1-J1-S	WHT-RED-ORN 22
18.481	10	Over Range	A11-J1-V	WHT-BRN	P1-72	WHT-BRN
18.481	11	Dec. Ind (1V)	P1-43	WHT/BRN		
18.481	12	Dec. Ind (10V)	P1-44	WHT/RED		
18.481	13	Dec. Ind (100V)	P1-45	WHT/VIO		
	14					
*18.482	15	Dec. Point Grd	NW9-33	BLK 22		SD-Bus
*18.482	16	± Ind Grd	NW9-8	BLK 22		SD-Bus
18.481	17	AC Ind Grd	DS5-8	BLK 22	P1-73	BLK 22
	18					
18.481	19	Dec. Ind (1000V)	P1-46	WHT/GY 22		
18.484	20	-8V Grd	T1-15	BLK 20		
18.481	21	Range Card Auto	A11-J1-J	BLU 20		
18.511	22	Relay Drive	NW9-38	BLU		
	23					
18.482	24	Sign Relay Lock	A6-J1-F	BLU 20		
18.481	25	AC Mono Cap	A11-J1-10	COAX 27	GRD. COAX SHIELDS ON BUS BETWEEN P4-44 & 45	
	26		A11-J1-14	COAX 28		
	27		A11-J1-16	COAX 30		
18.481	28	AC Mono Cap	A11-J1-15	COAX 29		
*___18.483	29	Input	J3-1	COAX 23	NW9-31	COAX 32
			P2-24	COAX 23		
___;18.511	30	Conn Grd	J3-2	COAX 25	NW9-24	COAX 31
			P2-25	COAX 25 Shield		
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					
18.481	41	115V AC Hot	XF1-1	BLK 16		
	42	115V AC Conn	E4	WHT 16		
	43	Earth Grd	E4-Lug	GRN 16		
	44	Function Grd	E1-B1	BLK 16		SD-Bus
18.481	P4-45	Function Grd COAX Shield				SD-Bus

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
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PROJECT 1734	B 026 212 0W
SHEET 19 OF SHEETS	

NW1 INPUT RESISTOR NETWORK, 12.779

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW1-1	Ampl Input "B"	NW9-12	SD-Bus		
18.483	2	1000V/10V Input	-14	SD-Bus		
	3	Ampl Input "B"	-15	SD-Bus		
——,18.483	4	Output "B"	-30	SD-Bus		
	4	Output "B"	NW7-J1-9	COAX1		
	5	Ampl Input "B"	NW9-29	SD-Bus		
	6	1000V/10V F.B.	-16	SD-Bus		
18.483,__	7	Ampl Input "B"	-19	SD-Bus		
	8	Ampl. Input "B"	-18	SD-Bus		
	9	Ampl. Input "B"	-17	SD-Bus		
	10	1V Unl'd Output	-20	SD-Bus		
18.483	11	1V Unl'd Output	Sc 9	Coax 8		
		Coax 8 Shield	E10	BLK 20		
*18.483	12	1V Unl'd Output	NW7-J1-16	COAX 9		
	13	10V Unl'd Input	NW9-21	SD-Bus		
	NW1-T4	10V Unl'd Input	S8-3	Coax 10		
		Coax 10 Shield	E10	BLK 20		

NW6 REF AMPL NETWORK 12.722

	NW6-1	Input	AR2-J1-L	BUS		
	2	Zener Input	AR2-J1-P	BUS		
	3	F.B. Resistor	AR2-J1-H	BUS		
18.484	4	-100V Ref	AR2-J1-W	BUS	S2a-C	WHT-VIO 22
	5	Zero Set	R1-1	WHT-VIO 22		
18.484	6	-100V Ref (Ext.)	S2b-C	WHT-VIO 22		
18.484	7	Filter(-110)	AR2-J1-N	BUS	P2-6	WHT 22
18.483	NW6-8	Filter Grd (-110)	T1-18	BLK 16		

NW8 RECTIFIER NETWORK 12.675

18.483	NW8-1	± Grd (-20V)	E1-A4	BLK 16		
18.484	2	+40V (Reg)	C5 (+)	WHT-RED-RED 22		
	3	+20V (Reg)	XQ3-3	WHT-RED-ORN		
	4	36V AC (+40)	T1-9	WHT-RED-RED		
	5	39V AC (+20)	T1-8	WHT-RED-ORN		
	6	39V AC (+20)	T1-6	WHT-RED-ORN		
	7	36V AC (+40)	T1-11	WHT-RED-RED		
	8	+20V (Unreg)	R5-1	WHT-RED-ORN		
	9	+40V (Unreg)	E9	WHT-RED-RED		
	10	-20V (Unreg)	R6-1	WHT-VIO-RED 22		
	11	-8V	R11-1	WHT-VIO-BLU 20		
	12	39V AC (-20)	T1-3	WHT-VIO-RED 22		
	13	15V CT (-8)	T1-16	WHT-VIO-BLU 20		
	14	15V CT (-8)	T1-14	WHT-VIO-BLU 20		
	15	39V AC (-20)	T1-5	WHT-VIO-RED 22		
18.484	NW8-16	-8V	R11-3	WHT-VIO-BLU 20		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

SHT NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 20 OF SHEETS

NW2-J1 SUMMING RESISTOR NETWORK 26.116

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	NW2-J1-A	10	A1-J1-13	WHT 20 *		
	B	20	A1-J1-12	RED		
	C	40	A1-J1-11	BRN		
18.482	D	80	A1-J1-10	BLK		
	E	Summing Junc. COAX 11 & 31 Shield	A1-J1-1 E10	COAX 31 BLK 20	NW7-J1-17	COAX 11
18.482	F	-1 Digit	A6-J1-K	YEL		
18.483	H	Input Coax 12 Shield	NW7-J1-20 E10	COAX 12		
	J	Key				
18.484	K	-100V Ref	S2a-NC	WHT-VIO 22		
18.483	L	⏚GRD	E2-G1	BLK 16		
18.482	M	100	A1-J1-9	WHT		
	N	200	8	GY		
	P	400	7	VIO		
	R	800	6	BLU		
	S	1000	5	GRN		
	T	2000	4	YEL		
	U	4000	3	ORN		
	V	8000	2	RED		
	W	1	17	ORN 20 *		
	X	2	16	RED 20 *		
	Y	4	15	BRN 20 *		
18.482	NW2-J1-Z	8	A1-J1-14	BLK 20 *		

*Run as direct as possible in separate cable

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 21 OF SHEETS

NW7-J1 NETWORK CARD (MISC.) 12.687

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.482	NW7-J1-1	(+) Ind	A6-J1-W	YEL		
18.482	2	(-) Ind	A6-J1-X	YEL		
18.482	3	Shift (RSD)	A10-J1-L	YEL		
	4	Pull Over	A2-J1-M	BUS		
18.482	5	A.R.S. Com(K2)	A11-J1-8	RED		
	6					
18.482	7	Ind Clear	A6-J1-E	YEL		
18.482	8	Hold	P1-68	YEL		
18.483	9	Ampl Out "B"	AR1-J1-Z	SD-Bus	NW1-4	Coax 1
		Coax 1 Shield	E2-P2	BLK 20		
18.483	9	Ampl Out "B"	P2-9	Coax 7		
		Coax 7 Shield	E2-P3	BLK 20		
	10	Ampl Inp "B"	AR1-J1-V	Bus		
	11	Summing Junction	NW7-J1-17	SD-Bus		
*18.483	12	Input 1V	S8-10	COAX 13		
		Coax 13 Shield	E2-N2	BLK 20		
	13	Key				
*18.483	14	Input 10V	S8-4	COAX 14		
		Coax 14 Shield	E2-N3	BLK 20		
*18.483	15	Unloading 10V	S8-3	COAX 15		
		Coax 15 Shield	E2-G3	BLK 20		
*18.483	16	Unloading (1) 1V	NW1-12	COAX 9		
		Coax 9 Shield	E2-F3	BLK 20		
	17	Summing Junction	NW2-J1-E	COAX 11	NW7-J1-11	Bus
18.483	18	Full Scale Adj	XK1-12	COAX 16		
		Coax 16 Shield	E2-E3	BLK 20		
___,18.483	19	Ampl Out "A"	AR1-J1-B	BUS	P2-8	COAX 6
		Coax 6 Shield	E2-C3	BLK 20		
18.483	20	Input (Sum. Resistor)	NW2-J1-H	COAX 17		
		Coax 17 Shield	E2-B3	BLK 20		
	21	Ampl Inp "A"	AR1-J1-S	BUS		
18.511	22	Output	NW9-26	COAX 18		
		Coax 18 Shield	E2-D3	BLK 20		
18.484	A	-12V	A2-J1-L	WHT-VIO-ORN 22		
	B	+12	A2-J1-B	WHT-RED-ORN 22		
18.484	C	+2V	A2-J1-Y	WHT-RED-BLU 22	R8-1	WHT-RED-BLU 22
	D					
	E					
	F					
	H					
	J					
	K					
	L					
	M					
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
18.484	X	+20V	AR-J1-D	WHT-RED-ORN 22		
18.484	Y	± Grd	E2-H3	BLK 16		
18.484	NW7-J1-Z	-20V	AR1-J1-A	WHT-VIO-RED 22		

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 0W
SHEET 22 OF SHEETS

S2 INTERNAL/EXTERNAL - EF.

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	S2a-C	-100V Ref	NW6-4	WHT-VIO 22	P2-2	WHT-VIO 22
18.484	NC	-100V Ref	NW2-J1-K	WHT-VIO 22	S2b-C	SD-BUS
18.511	NC	-100V Ref	NW9-25	WHT-VIO 22		
	S2a-NO	HQ-Grd	R13	See Sht 2		
18.484	S2b-C	-100V Ref	S2a-NC	SD-BUS	NW6-6	WHT VIO 22
	NC					
	S2b-NO	Ext Ref	J2-A	WHT-VIO 22		
		RANGE SWITCH				
*__,18.481	S3a-1	Remote			P4-3	ORN
*18.481	2	Auto	A11-J1-B	YEL	S3a-7	BUS
	3	1000V Range				
*__,18.481	4	100V Range	S3a-9	SD-BUS	NW9-7	BLU
*18.481	4	100V Range	A11-J1-L	BLU		
*18.481	5	10V Range	S3a-10	SD-BUS	P4-6	VIO
*__,18.481	6	1V Range	S3a-11	SD-BUS	A11-J1-K	GRN
	7	Auto (Ohms)	S3a-2	SD-BUS		
	8	1000K (Ohms)				
	9	100K (Ohms)	S3a-4	SD-BUS		
	10	10K (Ohms)	S3a-5	SD-BUS		
	11	1K (Ohms)	S3a-6	SD-BUS		
*18.483	S3a-12	Arm (Grd)	S3b-2	SD-BUS	C4 (+)	BLK #16
	S3b-1	Remote				
	2	Arm (Grd)	S3a-12	SD-Bus		
	3	1000V Range				
	4	100V Range				
	5	10V Range				
	6	Auto (Ohms)	S3b-7	SD-BUS		
	7	1000K (Ohms)	S3b-8	SD-BUS	S3b 6	SD-BUS
	8	100K (Ohms)	S3b-9	SD-Bus	S3b-7	SD-BUS
	9	10K (Ohms)	S3b-10	SD-BUS	S3b-8	Bus
18.511	S3b-10	1K (Ohms)	NW9-38	BLU		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 OW
SHEET 23 OF SHEETS

S4 POWER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	S4-1	115V AC (On)			XF1-2	BLK (T #2)
	2	115V AC (Off)			E3	RED (T #2)
	3	Input	NW9-22	COAX 19		
	4	Input	NW9-23	COAX 20		
	5	Input	NW9-27	COAX 21		
	6	115V AC (On)				
	7	115V AC (Off)				
	S4-8	Grd	R1-3	BUS		
		S5 FUNCTION				
18.482	S5-1	Ext (Cycle Com.)	P4-8	GY		
	2	Man Push	S7-1	BUS		
18.482	3	Cycle Com.	A6-J1-U	YEL		
18.484	4	Int (+12V)	VR1-J1-S	WHT-RED-ORN 22	S7-2	BUS
18.482	5	Hold	A6-J1-D	YEL		
18.483	6	± Grd	C4 (+)	BLK 16		
	7					
	S5-8					
		S7 - TRIGGER				
	S7-1	Manual Push	S5-2	BUS 20		
	S7-2	+12V	S5-4	BUS 20		
		S8 - INPUT Z				
	S8- 2					
*18.483	3	Unl'd 10V	NW1-14	COAX 10	NW7-J1-15	COAX 15
*18.483	4	Input 10V	NW7-J1-14	COAX 14		
	8					
	9	Unl'd 1V	NW1-11	COAX 8		
*18.483	S8- 10	Input 1V	NW7-J1-12	COAX 13		

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ELECTRONIC ASSOCIATES, INC. LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W
SHEET 24 OF SHEETS	

NOTES:

1. All leads connected to E1 and E2 Connectors are to be terminated into Taper Pins.

USE: Item 181 for #20 AWG Leads.
Item 183 for #16 AWG Leads.

E1, ± GROUND E2, H.Q. GRD

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.483	E1-A1	(-20V)	C4 (+)	BLK 16		
18.483	2	(Power Supply)	VR1-J1-Z			
18.481	3	(Output)	P1-47			
18.483	4	(Reat. Network)	NW8-1			
	5	(Prog)	A6-J1-Z			
	6	(Inter. Block)	E2-F2			
	7	(C.T. -220)	T1-18			
	8	(Transformer)	T1-20			
	9	(+20V)	X24-3			
18.483	-A10	(6.3V AC Ret)	T1-13			
18.481	B1	Function Grd	P4-44			
18.483	2	(C.T. -8V)	T1-15			
18.483	E1-B3	± Grd	E11	BLK 16		
		E2 H.Q. GROUND				
	E2-A1	AR1-J1-B	Coax 2 Shield	BLK 20		
18.483	A2		06-2	BLK 20		
18.511	A3					
18.483	B1	"A" (DC Ampl)	AR1-J1-N	BLK-WHT 16		
	B2	"B" (DC Ampl)	AR1-J1-M	BLK-WHT 16		
	B3	NW7-J1-20	Coax 17 Shield	BLK 20		
	C1	Ref Ampl	AR2-J1-Z	BLK-WHT-16		
	C2	± Grd (Junct)	E5	BLK 16		
	C3	NW7-J1-19	Coax 6 Shield	BLK 20		
	D1	"B" (DC Ampl)	AR1-J1-E	BLK 16		
	D2	"A" (DC Ampl)	AR1-J1-Y	BLK 16		
	D3	NW7-J1-22	Coax 18 Shield	BLK 20		
	E1	± Grd	R1-3	BLK 16		
*	E2	HQ Grd	NW9-32	BLK 16		
	E3	NW7-J1-18	Coax 16 Shield	BLK 20		
	F1	Bal POT "A"	R3-3	BLK 16		
	F2	Inter. Block	E1-A6	BLK 16		
	F3	NW7-J1-16	Coax 9 Shield	BLK 20		
	G1	Sum. Res.	NW2-J1-L	BLK 16		
18.483	G2	Ref. Amp	AR2-J1-J	BLK 16		
	G3	NW7-J1-15	Coax 15 Shield	BLK 20		
	H1	AR1-J1-V	Coax 3 Shield	BLK 20		
	H2	Jumper	E2-R1	BLK 16		
18.483	H3	± Grd	NW7-J1-Y	BLK 16		
	J1					
	J2					
	J3					
	K1					
	K2					
	K3					
	L1					
	L2					
	L3					
	M1					
	M2					
	M3					
	N1	Jumper	E2-P2	BLK 16		
	N2	NW7-J1-12	Coax 13 Shield	BLK 20		
	N3	NW7-J1-14	Coax 14 Shield	BLK 20	E2-R2	BLK 16
	P1					
	P2	Jumper	E2-W1	BLK	Coax #1 Shield	BLK 20
	P3	NW7-J1-9	Coax 7 Shield	BLK 20		
	R1	± Grd	E10	BLK 20	E2-W2	BLK 16
18.482	R2	H.Q.Grd (Comp)	A1-J1-35	BLK-WHT 20	E2-N3	BLK 16
18.482	E2-R3	± Grd (Comp)	A1-J1-39	BLK 20		

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W
SHEET 25 OF SHEETS	

E2 H.Q. GROUND (Cont'd) E3,4 - Etc.

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	E2-S1					
	S2					
	S3					
	T1					
	T2					
	T3					
	U1					
	U2					
	U3					
	V1					
	V2					
	V3	6.3V AC (TH1)(-)(Ret)	T1-13	SHU 3 Shield	A1-TH1 (-)	(See Sht. 2)
18.483	W1	6.3V AC (TH1)(+)(Hot)	T1-12	SHU 3	A1-TH1 (+)	
	W2					
	E2-W3					
	E3	115V AC (Hot)	S4-2	RED (T #2)	T1-2C	RED (T #1)
	E4	115V AC (Com)	T1-1	BLK (T #1)	P3-9 *	
18.481	E4	115V AC Com	P4-42	WHT 16		
	E4 Lug	115V AC Earth Grd	T #1	Shield	T #2	Shield
18.481	E4 Lug	115V AC Earth Grd	P3-5 *		P4-43	GRN 16
18.483	E5	± Grd	E2-C2	BLK 16		
	E5	± Grd	J2-A	BLK 20		
	E5	± Grd	COAX 23 Shield	BLK 20	COAX 25 Shield	BLK 20
	E5 Lug	Grd (Chassis)	R14-2	BLK 20		
						BLK 20
18.484	E9	+40V (Output)	NW8-9	WHT-RED-RED 22		
	E10	±Grd Bus (See sht 2)	Coax 8 shield	BLK 20	Coax 10 Shield	BLK 20
	E10	±Grd	E2-R1	BLK 20	Coax 11 Shield	BLK 20
	E10	±Grd	Coax 12shield	BLK 20	COAX 31 Sheild	BLK 20
	E10	± Grd	Coax 23 Shield	BLK 20	Coax 22 Shield	BLK 20
	E10	± Grd	Coax 25 Shield	BLK 20	Coax 24 Shield	BLK 20
18.483	E11	± Grd	E1-B3	BLK 16		

* = RETMA Color Leads of Power Cord
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Common)

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 26 OF SHEETS

T1 - TRANSFORMER, POWER

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	T1-1	115V AC Com	E4	BLK (T#1)	B1-2	BLK (T#3)
	-1	115V AC Com	T1-2A	BUS #20		
	2A	115V AC	T1-1	BUS #20		
	2B	115V AC			B1-1	RED (T#3)
	2B	115V AC	T1-2C	BUS #20		
	2C	115V	T1-2B	BUS #20	E3	RED (T#1)
18.484	3	39V AC (-20)	NW8-12	WHT-VIO-RED 22		
	4					
	5	39V AC (-20)	NW8-15	WHT-VIO-RED 22		
	6	39V AC (+20)	NW8-6	WHT-RED-ORN 22		
	7					
	8	39V AC (+20)	NW8-5	WHT-RED-ORN 22		
	9	36V AC (+40)	NW8-4	WHT-RED-RED 22		
	10					
18.484	11	36V AC (+40)	NW8-7	WHT-RED-RED 22		
18.483	12	6.3V AC (Vib Drive)	AR1-J1-F	SHU 1	AR2-J1-A	SHU 2
18.483	12	6.3V AC (Vib Drive)	E2-W1	SHU 3		
	13	Vib Drive Ret	AR1-J1-H	SHU 1 Shield	AR2-J1-B	SHU 2 Shield
18.483	13	Vib Drive Ret	E2-V3	SHU 3 Shield	E1-A10	BLK 16
18.484	14	15V AC (-8)	NW8-14	WHT-VIO-BLU 20		
18.483	15	C.T. Grd (-8)	C1 (+)	BLK 16	A11-J1-W	BLK 16
18.483	15	C.T. Grd (-8)	E1-B2	BLK 16	A8-J1-M	BLK 16
18.484	15	C.T. Grd (-8)	P4-20	BLK 20		
18.484	16	15V AC (-8)	NW8-13	WHT-VIO-BLU 20		
18.484	17	220V AC (-110)	AR2-J1-D	WHT 22		
18.483	18	C. T. Grd (-110)	C2 (+)	BLK 16	NW6-8	BLK 16
18.483	18	C. T. Grd (-110)	E1-A7	BLK 16		
18.484	19	220V AC (-110)	AR2-J1-E	WHT		
18.483	T1-20	Transformer Grd	E1-A8	BLK 16		
	J2-C	Ext. Ref	S2b-NO	WHT-VIO 20		
	J2-A	Conn. Grd	E5	BLK 20	R13	See Sht 2

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 0W
SHEET 27 OF SHEETS

XK1, SIGN SWITCHING

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	XK1-1	Relay Coil (-12V)	XQ1-3	WHT-VIO-ORN 22		
	2					
	3					
18.482	4	Relay Coil	A6-J1-F	BLU		
18.482	5	NC (-Ind)	DS5-10	BLK		
18.511	6	Arm	NW9-36	GRN		
18.482	7	NO (Ind)	DS5-1	BRN		
↓	8	NC (-Relay)	A6-J1-Y	YEL		
	9	Arm, Relay	A6-J1-M	YEL		
18.482	10	NO (Relay)	A6-J1-V	YEL		
	11	Ampl Out "B"	XK1-14	BUS		
18.483	12	Full Scale Adj	XK1-15	BUS	NW7-J1-18	COAX 16
	13	Ampl Out "A"	XK1-16	BUS		
	14	Ampl Out "B"	XK1-11	BUS	NW9-30	COAX 34
	15	Arm (F.S. Adj)	XK1-12	BUS	NW9-28	COAX 33
18.483	XK1-16	Ampl Out "A"	XK1-13	BUS	AR1-J1-B	COAX 2

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1734 B 026 212 OW
SHEET 28 OF SHEETS

NW9 INPUT SWITCHING RELAYS 11,159

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
*18.481	NW9-1	Dec. Ind (1000V)	DS4-11	WHT - GRY		
*18.481	2	Dec. Ind (100V)	DS3-11	WHT- VIO		
	3	Rel Drive (K2)	A11-J1-J	BLU		
*18.481	4	Dec. Ind (1V)	DS1-11	WHT- BRN		
*18.481	5	Dec. Ind (10V)	DS2-11	WHT- RED		
	6	Dec. Point Grd				
*18.481	7	K3 Drive	S3a-4	BLU		
*18.482	8	±IND GRD	P4-16	BLK #22		
	9	N.C.				
	10	COAX Grd				
	11				P4-16	
	12	Ampl Input "B"	NW1-1	SD-BUS		
*18.483	13	Ampl Input B	AR1-J1-V	COAX 3		
	14	1000V/10V Input	NW142	SD-BUS		
	15	Ampl Input "B"	NW1-3			
	16	1000V/10V F.B.	NW1-6			
	17	Ampl Input "B"	NW1-9			
	18	Ampl Input "B"	NW1-8			
	19	Ampl Input "B"	NW1-7			
	20	1V Unl'd Output	NW1-10			
	21	10V Unl'd Input	NW1-13	SD-BUS		
	22	Input	S4-3	COAX #19		
	23	Input	S4-4	COAX #20		
18.511,__	24	Conn Grd	P4-30	COAX #35	J1-2	COAX 24
18.511	25	-100V Ref	S2a-Nc	WHT-VIO		
18.511	26	Output	NW7-22	COAX #18		
	27	Input	S4-5	COAX #21		
	28	Arm (F.S. adj)	XK1-15	COAX #33		
	29	Ampl Input "B"	NW1-5	SD-BUS		
	30	Output "B"	XK1-14	COAX #34	NW1-4	SD-BUS
*18.483	31	Input	P4-29	COAX #32	J1-1	COAX 22
*18.483	32	HQ Grd	E2-E2	BLK #16		SD-BUS
*18.482	33	Dec. Point Grd	P4-15	BLK #22		
	34	COAX Grd BUS	Grd for	COAX Shields 19,	20.21,22,24,35,32,33,34	
18.511	35	N.O. Arm (Ω IND)	P1-78	BLU		
18.511	36	Arm	XK1-6	GRN		
	37	Dec. Grd				
18.511	38	Relay Drive	P4-22	BLU	S3b-10	BLU
	NW9-39	-20V Filter	C4(-)	WHT-VIO-RED		

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ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 OW

SHEET 29 OF 29 SHEETS

R1, 2, 3, 5, 6, 8 and R11

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	R1-1	Zero Set	NW6-5	WHT-VIO 22		
18.482	2	Zero Set	A1-J1-34	GRN		
18.483,___	R1-3	± Grd	E2-E1	BLK 16	S4-8	BUS
18,484	R2-1	-20V Output	R3-1	BUS	P2-5	WHT-VIO-RED 22
18.482	2	Bal Pot "B"	AR1-J1-R	YEL		
	R2-3	± Grd	R3-3	BUS		
18.484	R3-1	-20V Output	VR1-J1-N	WHT-VIO-RED 22	R2-1	BUS
18.482	2	Bal Pot "A"	AR1-J1-K	YEL		
18.483	R3-3	± Grd	R2-3	BUS	E2-F1	BLK 16
18.484	R5-1	+20V	NW8-8	WHT-RED-ORN 22		
18.484	R5-2	+20V	C3 (-)	WHT-RED-ORN 22	XQ4-1	WHT-RED-ORN 22
18.484	R6-1	-20V	NW8-10	WHT-VIO-RED 22		
18.484	R6-2	-20V	C4 (-)	BUS 20	XQ2-1	WHT-VIO-RED 22
18.484	R8-1	+2V Output	VR1-J1-T	WHT-RED-BLU 22	NW7-J1-C	WHT-RED-BLU 22
18.484	R8-2	+20V Output	C3 (+)	WHT-RED-ORN 22	XQ3-3	WHT-RED-ORN 22
18.484	R11-1	Drop. Resis. (-8V)	NW8-11	WHT-VIO-BLU 20		
	R11-2	Drop. Resis. (-8V)	C1 (-)	WHT-VIO-BLU 20	A10-J1-A	WHT-VIO-BLU 20
18.484	R11-3	Drop. Resis. (-8V)	NW8-16	WHT-VIO-BLU 20		
	R14-1	±Grd	C6-1	Resist Lead		
	R14-2	Chassis Grd	E5 Lug	BLK 20		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 30 OF SHEETS

XQ1,2,3,4 XF1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	XQ1-1	-20V (Collector)	VR1-J1-Y	WHT-VIO-RED 22		
	XQ1-2	-12V (Base)	VR1-J1-U	WHT-VIO-ORN 22		
	XQ1-3	-12V Output	VR1-J1-P	WHT-VIO-ORN 22	XK1-1	WHT-VIO-ORN 22
	XQ2-1	Collector (-20)	R6-2	WHT-VIO-RED 22	VR1-J1-X	WTH-VIO-RED 22
	XQ2-2	Base (-20)	VR1-J1-W	WHT-VIO-RED 22		
	XQ2-3	-20V Output	VR1-J1-N	WHT-VIO-RED 22	AR1-J1-A	WHT-VIO-RED 22
	XQ3-1	Collector (+40)	C5 (-)	WHT-RED-RED 22	VR1-J1-B	WHT-RED-RED 22
	XQ3-2	Base (+40)	VR1-J1-A	WHT-RED-RED 22		
	XQ3-3	+20V Output	R8-2	WHT-RED-ORN 22	VR1-J1-M	WHT-RED-ORN 22
	XQ3-3	+20V Output	NW8-3	WHT-RED-ORN 22		
	XQ4-1	Collector (+20)	R5-2	WHT-RED-ORN 22	VR1-J1-L	WHT-RED-ORN 22
18.484	XQ4-2	Base (+20)	VR1-J1-K	WHT-RED-ORN 22		
18.483	XQ4-3	Emitter Grd	E1-A9	BLK 16		
—, 18.481	XF1-1	115V AC (Hot)	P3-0	* (0) BLK	P4-41	BLK-16
	XF1-2	115V AC	S4-1	BLK (T#2)		

* = RETMA Color Leads of Power Cord:
(0) Black - AC Line (Hot)
(5) Green - Earth Ground
(9) White - AC Line (Common)

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 31 OF SHEETS

C1, 2, 3, 4, 5, C6 B1 and TH1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.483 18.484	C1 (+) C1 (-)	Filter Grd -8V Filter	T1-15 R11-2	BLK 16 WHT-VIO-BLU 20	DS5-C	BUS 20
18.483 18.484	C2 A (+) C2 B (+) C2 (-)	Filter Grd Filter Grd -110V Filter	 AR2-J1-K	Bus #20 WHT 22	T1-18	BLK 16
18.484 18.484	C3 (+) C3 (-)	+20V Output +20V Filter	R8-2 R5-2	WHT-RED-ORN 22 WHT-RED-ORN 22		
*18.483;18.484 18.483 18.484	C4 (+) C4 (+) C4 (-)	± Grd ± Grd -20V Filter	S3a-12 A2-J1-P NW9-39	BLK 16 BLK 16 WHT-VIO-RED 22	E1-A1 S5-6 R6-2	BLK 16 BLK 16 BUS 20
18.484 18.484 18.484	C5 (+) C5 (+) C5 (-)	+40V Output +40V Output +40V Filter	NW8-2 VR1-J1 E XQ3-1	WHT-RED-RED 22 WHT-RED-RED 22 WHT-RED-RED 22	AR1-J1-J	WHT-RED-RED
18.483	C6-1 C6-2	± Grd (Out) ± Grd (In)	R14-1 E2-A2	Resistor Lead BLK 20		
	B1-1 B1-2	117V AC 117V AC Com	T1-1 T1-2B	BLK (T #3) RED (T #3)		

3

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

SHEET 32 OF SHEETS

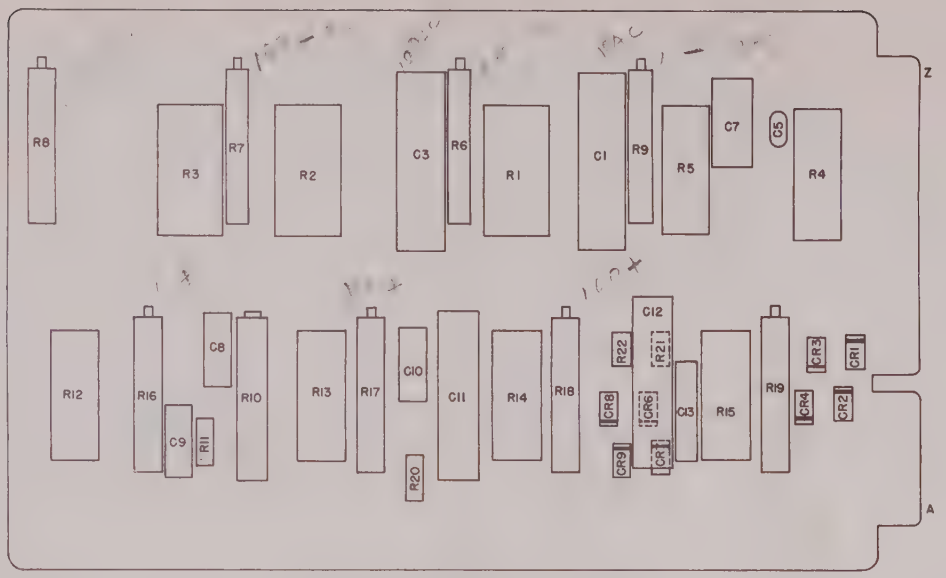
VR1-J1 POWER SUPPLY REGULATOR 43.094 -1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
18.484	VR1-J1-A	+40V Input	XQ3-2	WHT-RED-RED 22		
	B	Filter (+40V)	XQ3-1	WHT-RED-RED		
	C					
	D					
	E	+40V Output	C5 (+)	WHT-RED-RED	AR2-J1-T	WHT-RED-RED 22
	F					
	H					
	J					
	K	+20V Input	XQ4-2	WHT-RED-ORN		
	L	+20V Filter	XQ4-1	WHT-RED-ORN		
	M	+20V Output	P2-12	WHT-RED-ORN	AR1-J1-D	WHT-RED-ORN
	M	+20V Output	XQ3-3	WHT-RED-ORN		
	N	-20V Output	XQ2-3	WHT-VIO-RED	AR2-J1-M	WHT-VIO-RED
	N	-20V Output	R3-1	WHT-VIO-RED		
	P	-12V	XQ1-3	WHT-VIO-ORN	A6-J1-L	WHT-VIO-ORN
	P	-12V	A11-J1-Z	WHT-VIO-ORN		
	R	Key				
	S	+12V Output	A11-J1-Y	WHT-RED-ORN	P4-9	WHT-RED-ORN
	S	+12V Output	S5-4	WHT-RED-ORN		
	T	+2V Output	A11-J1-X	WHT-RED-BLU	R8-1	WHT-RED-BLU 22
	U	Base FW 2 Vistor	XQ1-2	WHT-VIO-ORN		
	V					
	W	-20V Input	XQ2-2	WHT-VIO-RED		
	X	-20V Filter	XQ2-1	WHT-VIO-RED		
18.484	Y	-20V Filter	XQ1-1	WHT-VIO-RED 22		
18.483	VR1-J1-Z	± Grd	E1-A2	BLK 16		

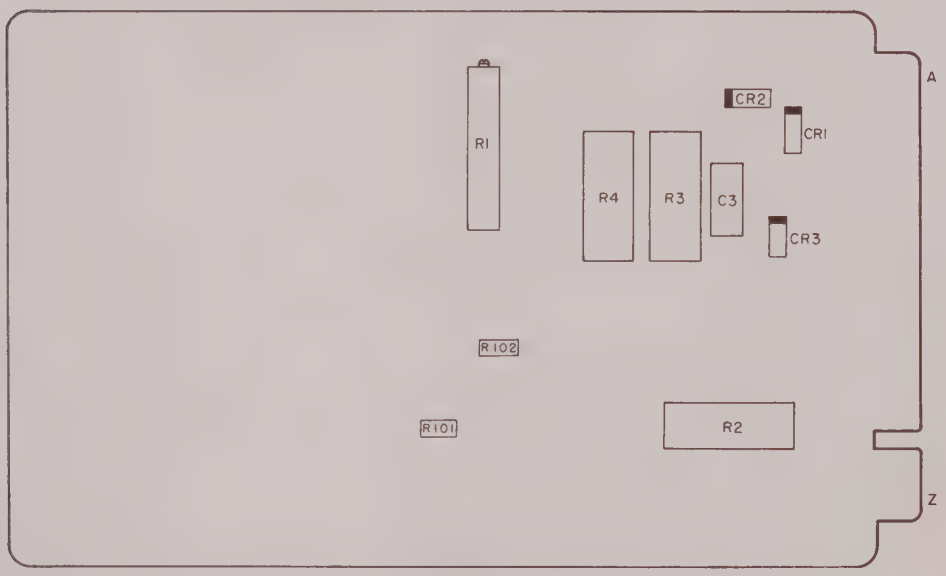
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1734	B 026 212 0W

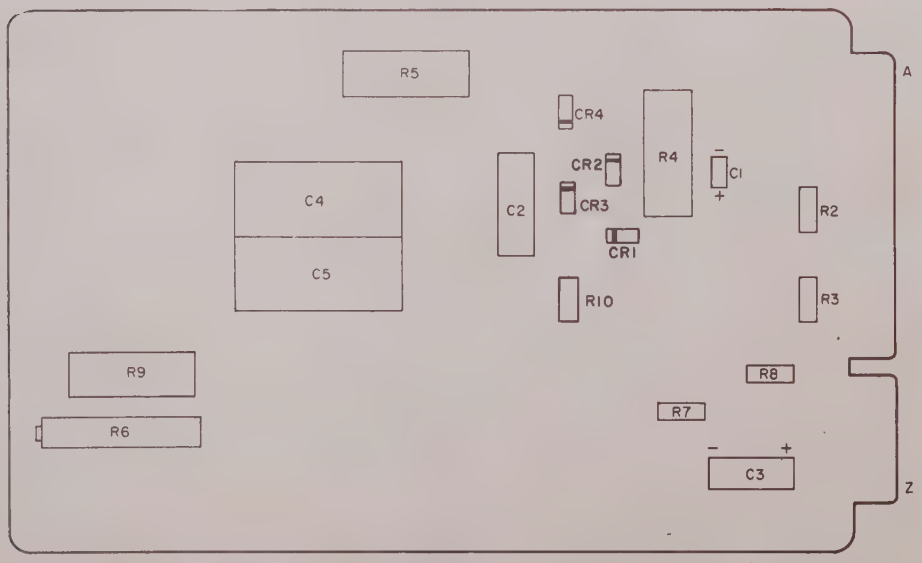
SHEET 33 OF SHEETS



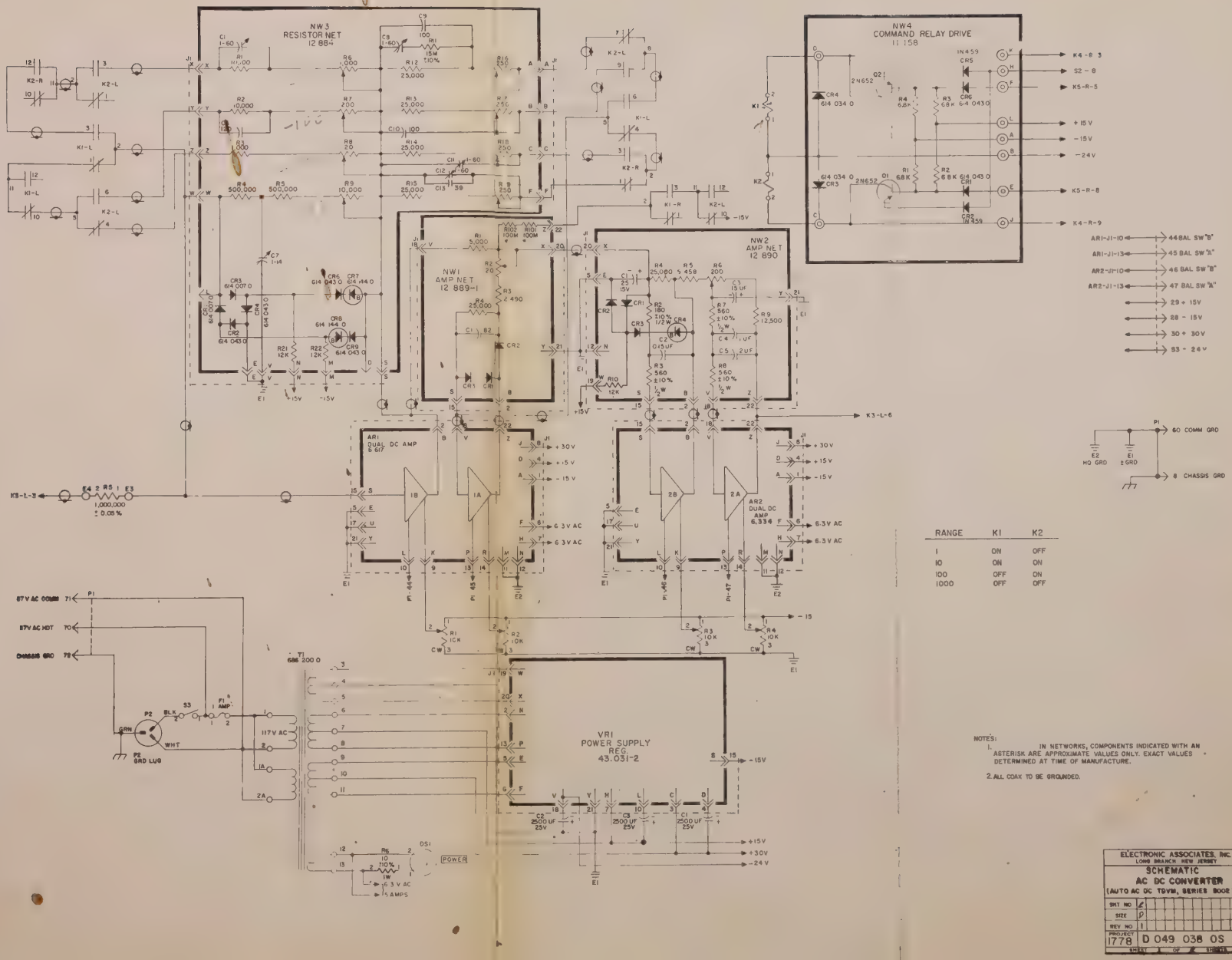
12.884 Resistor Network (NW3)

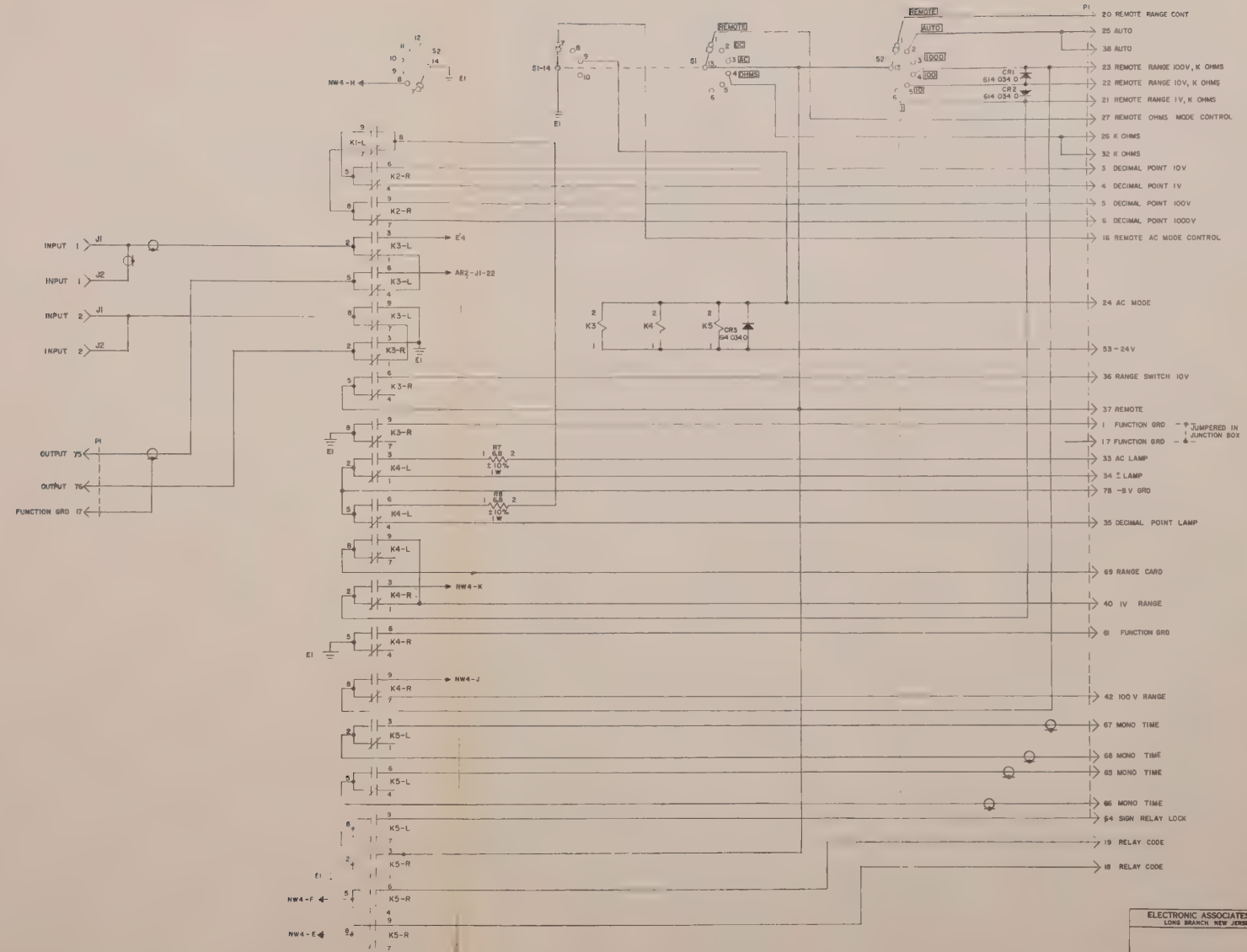


12.889-1 Amplifier Network (NW1)



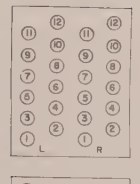
12.890 Amplifier Network (NW2)

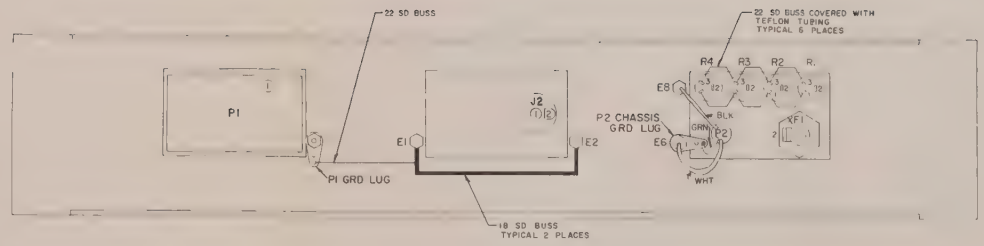

NW3
RESISTOR NET
12 884
NW4
COMMAND RELAY DRIVE
11 158
NW1
AMP NET
12 889-1
NW2
AMP NET
12 890
AR1
DUAL DC AMP
6 617
AR2
DUAL DC AMP
6.334
VR1
POWER SUPPLY
REG.
43.031-2
T1
686 200 0
K4-R-3
S2-R
K5-R-5
+15 V
-15 V
-24 V
K5-R-8
K4-R-9
K3-L-6
K3-L-3
117 V AC
87 V AC COMM
87 V AC HOT
CHASSIS GRD
6.3 V AC
5 AMPS
POWER
+15V
+30V
-24 V
-15V
RANGE K1 K2
1 ON OFF
10 ON ON
100 OFF ON
1000 OFF OFF
NOTES:
1. IN NETWORKS, COMPONENTS INDICATED WITH AN ASTERISK ARE APPROXIMATE VALUES ONLY. EXACT VALUES DETERMINED AT TIME OF MANUFACTURE.
2. ALL COAX TO BE GROUNDED.
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY
SCHEMATIC
AC DC CONVERTER
(AUTO AC DC TOWN, SERIES 8000)
SMT NO 4
SIZE D
REV NO 1
PROJECT 1778
D 049 038 OS



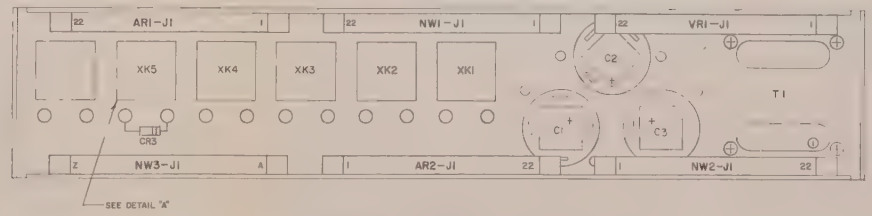
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

SHT NO	
SIZE	
REV NO	
PROJECT 1778	D049 038 05
SHEET	OF SHEETS

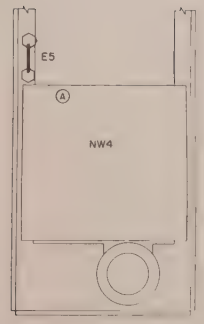




INSIDE VIEW OF REAR CONNECTOR PANEL

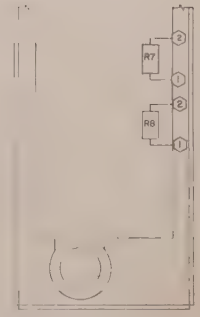


INSIDE VIEW OF CENTER MOUNTING BRIDGE



EXTERNAL VIEW OF LEFT CHASSIS LEG

INSIDE VIEW OF SUB-PANEL



EXTERNAL VIEW OF RIGHT CHASSIS LEG

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

WIRING
AC-DC CONVERTER
(AUTO AC DC TDVM, SERIES 5002)

SHT. NO.	1 2 3 4 5 6 7 8 9 10 11 12
SIZE	D D D D D D D D D D D D
REV. NO.	1 1 1 1 2 1 1 1 1 1 1 1

PROJECT 1778 D049 038 0W

SHEET 1 OF 12 SHEETS

AR1-DUAL DC AMPLIFIER (6.617)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	AR1-J1-A					
	B					
	C	Retaining Spring				
	D					
	E					
	F					
	G					
	H					
	J					
	K					
	L					
	M	Retaining Spring				
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
	X	Retaining Spring				
	Y					
	AR1-J1-Z					
	AR1-J1-1	-15V Input	AR2-J1-1	WHT-VIO-ORN		
	2	Output "1B"	NW1-J1-18	COAX #1	NW3-J1-S	COAX #2
		COAX #1 & 2 Shield	E5			
	3					
	4	+15V Input	AR2-J1-4	WHT-RED-ORN		
	5	±GRD	E1	BLK #18		
	6	VIB. Drive (6.3V)	T1-13	BRN 20 T		
	7	VIB. Drive Ret. (6.3V)	T1-12	WHT-BRN 20 T		
	8	+30V Input	VR1-J1-3	WHT-RED-RED	AR2-J1-8	WHT-RED-RED
	9	Bal Pot "B"	R1-2	GRN		
	10	Bal SW "B"	P1-44	BLU		
	11	HQ GRD "B"	E2	BLK-WHT #18		
	12	HQ GRD "A"	E2	BLK-WHT #18		
	13	Bal SW "A"	P1-45	BLU		
	14	Bal Pot "A"	R2-2	GRN		
	15	Input "1B"	NW3-J1-W	COAX #3		
	16	Key				
	17	±GRD	E1	BLK #18		
	18	Input "1A"	NW1-J1-15	COAX #4	XK1-L-5	COAX #5
		COAX #4 & 5 Shield	E5			
	19					
	20					
	21	±GRD	E1	BLK #18		
	AR1-J1-22	Output "1A"	NW1-J1-2	COAX #6		
		COAX #6 Shield	E5			

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	14	15	16	17
SIZE	B	B	B	B
REV. NO.	/	/	/	/

PROJECT 1778 B 049 038 0W

SHEET 2 OF SHEETS

AR2-DUAL DC AMPLIFIER (6.334)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	AR2-J1-A					
	B					
	C	Retaining Spring				
	D					
	E					
	F					
	G					
	H					
	J					
	K					
	L					
	M	Retaining Spring				
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
	X	Retaining Spring				
	Y					
	AR2-J1-Z					
	AR2-J1-1	-15V Input	VR1-J1-15	WHT-VIO-ORN	AR1-J1-1	WHT-VIO-ORN
	2	Output "2B"	NW2-J1-2	COAX #7		
		COAX #7 Shield	E5			
	3					
	4	+15V Input	VR1-J1-7	WHT-RED-ORN	AR1-J1-4	WHT-RED-ORN
	5	±GRD	E1	BLK #18		
	6	VIB. Drive (6.3V)	T1-13	BRN 20 T		
	7	VIB. Drive (6.3V)	T1-12	WHT-BRN 20 T		
	8	+30V Input	AR1-J1-8	WHT-RED-RED		
	9	Bal Pot "B"	R3-2	GRN		
	10	Bal SW "B"	P1-46	BLU		
	11	HQ GRD "B"	E2	BLK-WHT #18		
	12	HQ GRD "A"	E2	BLK-WHT #18		
	13	Bal SW "A"	P1-47	BLU		
	14	Bal Pot "A"	R4-2	GRN		
	15	Input "2B"	NW2-J1-15	COAX #8		
		COAX #8 Shield	E5			
	16	Key				
	17	±GRD	E1	BLK #18		
	18	Input "2A"	NW2-J1-18	COAX #9		
		COAX #9 Shield	E5			
	19					
	20					
	21	±GRD	E1	BLK #18		
	AR2-J1-22	Output "2A"	NW2-J1-22	VIO	XK3-L-6	VIO 16

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 0W
SHEET 3 OF SHEETS	

NW1-AMPLIFIER NET (12.889-1)

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW1-J1-A					
	B					
	C	Retaining Spring				
	D					
	E					
	F					
	H					
	J					
	K					
	L					
	M	Retaining Spring				
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
	X	Retaining Spring				
	Y					
	NW1-J1-Z					
	NW1-J1-1					
	2	Output "1A"	AR1-J1-22	COAX #6		
	3					
	4					
	5					
	6					
	7					
	8					
	9	Retaining Spring				
	10					
	11					
	12					
	13					
	14					
	15	Input "1A"	AR1-J1-18	COAX #4		
	16					
	17					
	18	Output "1B"	AR1-J1-2	COAX #1		
	19	Key				
	20	Sum Point "2B" COAX #10 Shield	NW2-J1-20 E5	COAX #10		
	21	±GRD	E1	BLK #18		
	NW1-J1-22	+15V (Switched)	XK1-R-2	WHT-VIO-ORN		

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B049 038 0W
SHEET 4 OF SHEETS	

NW2-AMPLIFIER NET (12.890)

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW2-J1-A					
	B					
	C	Retaining Spring				
	D					
	E					
	F					
	H					
	J					
	K					
	L					
	M	Retaining Spring				
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
	X	Retaining Spring				
	Y					
	NW2-J1-Z					
	NW2-J1-1					
	2	Output "2B"	AR2-J1-2	COAX #7		
	3					
	4					
	5	±GRD	E1	BLK #18		
	6					
	7					
	8					
	9					
	10					
	11					
	12	±GRD	E1	BLK #18		
	13					
	14					
	15	Input "2B"	AR2-J1-15	COAX #8		
	16	Key				
	17					
	18	Input "2A"	AR2-J1-18	COAX #9		
	19	+15V	C3- (+)	WHT-RED-ORN		
	20	Sum Point "2B"	NW1-J1-20	COAX #10		
	21	±GRD	E1	BLK #18		
	NW2-J1-22	Output "2A"	AR2-J1-22	VIO		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 0W

SHEET 5 OF SHEETS

NW3-RESISTOR NET (12.884)

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW3-J1-A	Input 1V	XK2-L-7	COAX #11		
		COAX #11 Shield	E5			
	B	Input 10V	XK2-L-9	COAX #12		
		COAX #12 Shield	E5			
	C	Input 100V	XK2-R-3	COAX #13		
		COAX #13 Shield	E5			
	D					
	E	±GRD	E1	BLK #18	NW3-J1-V	BLK #18
	F	Input 1000V	XK2-R-1	COAX #14		
		COAX #14 Shield	E5			
	H	Key				
	J					
	K					
	L					
	M	-15V Input	NW4 -J1-A	WHT-VIO-ORN	VR1-J1-15	WHT-VIO-ORN
	N	+15V Input	T1-7	WHT-RED-ORN	NW4-L	WHT-RED-ORN
	P					
	R					
	S	Output "1B"	AR1-J1-2	COAX #2		
	T					
	U					
	V	±GRD	NW3-J1-E	BLK #18		
	W	Input "1B" 1V	AR1-J1-15	COAX #3	X K1-L-2	COAX #15
		COAX #3 & 15 Shield	E5			
	X	Input 10V	XK2-L-3	COAX #16		
		COAX #16 Shield	E5			
	Y	Input 100V	XK2-L-6	COAX #17		
		COAX #17 Shield	E5			
	NW3-J1-Z	Input 1000V	XK2-L-4	COAX #18		
		COAX #18 Shield	E5			
	NW3-J1-1					
	2					
	3	Retaining Spring				
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	Retaining Spring				
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	Retaining Spring				
	21					
	NW3-J1-22					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 OW

SHEET 6 OF SHEETS

NW4-COMMAND RELAY DRIVE (11.158)

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	NW4-A	-15V Input	NW3-J1-M	WHT-VIO-ORN	P1-28	WHT-VIO-ORN
	B	Relay Coil (-24V)	XK1-1	WHT-VIO-RED		
	C	Relay Coil (-24V)	XK2-2	ORN		
	D	Relay Coil (-24V)	XK1-2	BRN		
	E	Relay Code	XK5-R-8	BLU		
	F	Relay Code	XK5-R-5	BLU		
	H	Auto	S2-8	YEL		
	J	100V Range	XK4-R-9	ORN		
	K	1V Range	XK4-R-3	BRN		
	NW4-L	+15V Input	NW3-J1-N	WHT-RED-ORN	P1-29	WHT-RED-ORN

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV NO.
PROJECT 1778 B 049 038 0W
SHEET 7 OF SHEETS

VR1-POWER SUPPLY REG. (43.031-2)

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	VR1-J1-A					
	B					
	C	Retaining Spring				
	D					
	E					
	F					
	H					
	J					
	K					
	L					
	M	Retaining Spring				
	N					
	P					
	R					
	S					
	T					
	U					
	V					
	W					
	X	Retaining Spring				
	Y					
	VR1-J1-Z					
	VR1-J1-1					
	2					
	3	+30V Input	AR1-J1-8	WHT-RED-RED	T1-10	WHT-RED-RED
	4	Filter +30V	C1-(-)	WHT-RED-RED		
	5	+36V	T1-9	WHT-RED-RED		
	6	+36V	T1-11	WHT-RED-RED		
	7	+15V Input	AR2-J1-4	WHT-RED-ORN	T1-7	WHT-RED-ORN
	8	Key				
	9					
	10	Filter +15V	C3 (-)	WHT-RED-ORN		
	11					
	12	+39V	T1-6	WHT-RED-ORN		
	13	+39V	T1-8	WHT-RED-ORN		
	14					
	15	-15V Input	AR2-J1-1	WHT-VIO-ORN		
	15	-15V Input	NW3-J1-M	WHT-VIO-ORN		
	16					
	17					
	18	Filter -24	C2- (-)	WHT-VIO-RED	P1-53	WHT-VIO-RED
	19	+39V	T1-3	WHT-VIO-RED		
	20	+39V	T1-5	WHT-VIO-RED		
	21	±GRD	E1	BLK #18		
	VR1-J1-22					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 OW
SHEET 8 OF SHEETS	

P1

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	P1-1	Function GRD	XK3-R-9	BLK#18		
	2					
	3	Dec. Point 10V	XK2-R-6	RED		
	4	Dec. Point 1V	XK2-R-4	BRN		
	5	Dec. Point 100V	XK2-R-9	ORN		
	6	Dec. Point 1000V	XK2-R-7	YEL		
	7					
	8	Chassis GRD	P1 GRD Lug	BLK#20		
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16	Remote AC Mode Cont	S1-7	BLK# 20		
	17	Function Grd	Coax 27,28,31-35 Shields			
	18	Relay Code	XK5-R-9	BLU		
	19	Relay Code	XK5-R-6	BLU		
	20	Rem. Range Cont.	S2-1	BLU		
	21	Rem. Range 1V	S2-6	BLU		
	22	Rem. Range 10V	S2-5	BLU		
	23	Rem. Range 100V	S2-4	BLU		
	24	AC Mode	S1-9	WHT-VIO-ORN		
	25	Auto Range	S2-2	BLU	P1-38	BLU
	26	K Ohms	S1-4	YEL	P1-32	YEL
	27	Rem. Mode Cont.	S1-1	YEL		
	28	-15V Input	NW4-A	WHT-VIO-ORN	R4-1	WHT-VIO-ORN
	29	+15V Input	NW4-L	WHT-RED-ORN		
	30	+30V Input	T1-10	WHT-RED-RED		
	31					
	32	K Ohms	P1-26	YEL		
	33	AC Lamp	R7-2	RED		
	34	± Lamp	XK4-L-1	ORN		
	35	Dec. Point Lamp	XK4-L-4	BRN		
	36	Range SW. 10V	XK3-R-6	YEL		
	37	Remote	XK3-R-5	BLK#20	S2-13	BLK# 20
	38	AUTO Range	P1-25	BLU		
	39					
	40	1V Range	XK4-R-1	YEL		
	41					
	42	100V Range	XK4-R-7	YEL		
	43					
	44	Bal SW "B"	AR1-J1-10	BLU		
	45	Bal SW "A"	AR1-J1-13	BLU		
	46	Bal SW "B"	AR2-J1-10	BLU		
	47	Bal SW "A"	AR2-J1-13	BLU		
	48					
	49					
	50					
	51					
	52					
	53	-24V	VR1-J1-18	WHT-VIO-RED		
	54					
	P1-55					

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B049 038 0W
SHEET 9 OF SHEETS	

P1, P2,

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	P1-56					
	57					
	58					
	59					
	60	±GRD,	E1	BLK#20		
	61	Function Grd	XK4-R-6	BLK #18		
	62					
	63					
	64	Sign Relay Lock	XK5-L-9	BLU		
	65	Mono Time	XK5-L-6	Coax #33		
	66	Mono Time	XK5-L-5	Coax #34		
	67	Mono Time	XK5-L-3	Coax #31		
	68	Mono Time	XK5-L-2	Coax #32		
	69	Range Card	XK4-L-8	BLU		
		Coax #31 thru 35 Shld	P1-17	BLK #20		
	70	117V AC (Hot)	XF1-1	WHT-GRY#20 T		
	71	117V AC (Comm)	E6	WHT#20 T		
	72	Chassis Grd	P2 Grd Lug	BLK#20		
	73					
	74					
	75	Input High	XK3-L-5	Coax #35		
	76	Input Low	XK3-R-2	BLK #18		
	77					
	P1-78	-8V GRD	XK4-L-2	BLK#20		
	*P2- BLK	117V AC (Hot)	E8			
	*P2- WHT	117V AC (Comm)	E6			
	*P2- GRN	Chassis GRD.	P2 GRD Lug			

NOTES:
1. Asterisk (*) denotes wires are part of AC Power Cord.

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT	B
1778	049 038 0W
SHEET 10 OF SHEETS	

S1, S2, & S3

HARN CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	S1-1	Remote Mode Cont.	P1-27	YEL		
	2					
	3					
	4	K Ohms	P1-26	YEL		
	5					
	6					
	7	Remote AC Mode Control	P1-16	BLK#20		
	8					
	9	AC Mode Cont	P1-24	WHT/VIO/ORN	XK3-2	WHT/VIO/ORN
	10					
	11					
	12					
	13	Remote	S2-13	BLK#20		
	S1-14	±Grd	E1	BLK#18		
	S2-1	Remote Range Cont.	P1-20	BLU		
	2	Auto Range	P1-25	BLU		
	3					
	4	Rem. Range 100V	P1-23	BLU	XK4-R-8	BLU
	5	Rem. Range 10V	P1-22	BLU		
	6	Rem. Range 1V	P1-21	BLU	XK4- R-2	BLU
	7					
	8	Auto	NW4-H	YEL		
	9					
	10					
	11					
	12					
	13	Remote	P1-37	BLK#20	S1-13	BLK#20
	S2-14	Remote	E1	BLK#18		
	S3-1	117V AC (HOT)	XF1-1	WHT-GY#20 T		
	S3-2	117V AC (HOT)	E8	WHT-GY#20 T		

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT NO.
SIZE
REV. NO.
PROJECT 1778 B 049 038 0W
SHEET 11 OF SHEETS

T1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	T1-1	117V AC (Comm)		SD-BUS #20	XF1-2	WHT-GRY#20 T
	1A	117V AC (Comm)				
	2	117V AC (Hot)		SD-BUS #20		
	2A	117V AC (Hot)			E6	WHT #20 T
	3	+39V	C1-J1-19	WHT-VIO-RED		
	4	+39V CT (⏚ Grd)	C2 (+)	BLK#18		
	5	+39V	VR1-J1-20	WHT-VIO-RED		
	6	+39V	VR1-J1-12	WHT-RED-ORN		
	7	+39V CT (+15V)	C3 (+)	WHT-RED-ORN	NW3-J1-N	WHT-RED-ORN
	7	+39V CT (+15V)	VR1-J1-7	WHT-RED-ORN		
	8	+39V	VR1-J1-13	WHT-RED-ORN		
	9	+36V	VR1-J1-5	WHT-RED-RED		
	10	+36V CT	C1- (+)	WHT-RED-RED	P1-30	WHT-RED-RED
	10	+36V CT	VR1-J1-3	WHT-RED-RED		
	11	+36V	VR1-J1-6	WHT-RED-RED		
	12	VIB. Drive Ret (6.3V)	AR1-J1-7	WHT-BRN#20T	DS1-2	WHT-BRN#20 T
	12	VIB. Drive Ret (6.3V)	AR2-J1-7	WHT-BRN#20T		
	13	VIB. Drive (6.3V)	AR1-J1-6	BRN#20 T	J7	BRN#20 T
	T1-13	VIB. Drive (6.3V)	AR2-J1-6	BRN#20 T		

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 0W
SHEET 12 OF SHEETS	

XK1

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	XK1-1	Relay Coil (-24V)	NW4-B	WHT-VIO-RED	XK2-1	SD-BUS
	-2	Relay Coil (-24V)	NW4-D	BRN		
	-3					
	XK1-4					
	XK1-L-1	Input	XK1-L-11	SD-BUS		
	-2	Input "1B" 1V	E3	Coax #20	NW3-J1-W	Coax #15
		Jumper Shields Together	(Coax #20 & 15)			
	-3	Input 10V	XK2-R-12	Coax #19		
		Coax #19 Shield	E5			
	-4	Input	XK2-R-2	Coax #23		
		Coax #23 Shield	E5			
	-5	Input 1A	AR1-J1-18	Coax #5		
	-6	Input	XK2-L-8	Coax #22		
		Coax #22 Shield	E5			
	-7	Dec Pt Lamps	XK2-R-8	GRY		
	-8	Dec Pt Lamps	R8-2	GRY		
	-9	Dec Pt Lamps	XK2-R-5	GRY		
	-10	Input	XK2-L-5	Coax #21		
		Coax #21 Shield	E5			
	-11	Input	XK1-L-1	SD-BUS		
	XK1-L-12					
	XK1-R-1					
	-2	-15V (Switched)	NW1-J1-22	WHT-VIO-ORN		
	-3	-15V (Switched)	XK2-L-11	WHT-VIO-ORN		
	-4					
	-5					
	-6					
	-7					
	-8					
	-9					
	-10					
	-11					
	XK1-R-12					

ELECTRONIC ASSOCIATES, INC.	
LONG BRANCH, NEW JERSEY	
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 0W
SHEET 13 OF SHEETS	

XK2 XK3

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	XK2-1	Relay Coil (-24V)	XK1-1	SD-BUS	XK3-1	SD-BUS
	-2	Realy Coil (-24V)	NW4-C	ORN		
	-3					
	XK2-4					
	XK2-L-1					
	-2	Input 10V	XK2-R-11	Coax #24		
		Coax #24 Shield	E5			
	-3	Input 10V	NW3-J1-X	Coax #16		
	-4	Input	NW3-J1-Z	Coax #18		
	-5	Input	XK1-L-10	Coax #21		
	-6	Input 100V	NW3-J1-Y	Coax #17		
	-7	Input 1V	NW3-J1-A	Coax #11		
	-8	Input	XK1-L-6	Coax #22		
	-9	Input 10V	NW3-J1-B	Coax #12		
	-10	-15V	R1-1	WHT-VIO-ORN		
	-11	-15V (Switched)	XK1-R-3	WHT-VIO-ORN		
	XK2-L-12					
	XK2-R-1	Input 1000V	NW3-J1-F	Coax #14		
	-2	Input	XK1-L-4	Coax #23		
	-3	Input 100V	NW3-J1-C	Coax #13		
	-4	Dec. Pt 1V	P1-4	BRN		
	-5	Dec. Pt Lamps	XK1-L-9	GRY		
	-6	Dec. Pt 10V	P1-3	RED		
	-7	Dec. Pt 1000V	P1-6	YEL		
	-8	Dec. Pt Lamps	XK1-L-7	GRY		
	-9	Dec. Pt. 100V	P1-5	ORN		
	-10					
	-11	Input 10V	XK2-L-2	Coax #24		
	XK2-R-12	Input 10V	XK1-L-3	Coax #19		
	XK3-1	Relay Coil (-24V)	XK4-1	SD-BUS	XK2-1	SD-BUS
	-2	Relay Coil (-24V)	XK4-2	SD-BUS	S1-9	WHT-VIO-ORN
	-3					
	XK3-4					
	XK3-L-1	Input	XK3-L-4	SD-BUS		
	-2	Input	J1-1	Coax #27	J2-1	Coax #28
		Coax #27 & 28 Shield	P1-17			
	-3	Input	E4	Coax #26		
		Coax #26 Shield	E5			
	-4	Input	XK3-L-1	SD-BUS		
	-5	Input High	P1-75	Coax #35		
	-6	Output "2A"	AR2-J1-22	VIO#16		
	-7	Comm	XK3-R-1	SD-BUS		
	-8	Input	J1-2	BLK #18	J2-2	BLK #18
	-9	± Grd	E1	BLK #18	XK3-R-3	SD-BUS
	-10					
	-11					
	XK3-L-12					
	XK3-R-1	Comm	XK3-L-7	SD-BUS		
	-2	Input Low	P1-76	BLK #18		
	-3	Comm	XK3-L-9	SD-BUS		
	-4					
	-5	Remote	P1-37	BLK #20	XK5-R-3	BLK #20
	-6	Range SW 10V	P1-36	YEL		
	-7					
	-8	± Grd	E1	BLK #18		
	-9	Function Grd	P1-1	BLK #18		
	-10					
	-11					
	XK3-R-12					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 0W

SHEET 14 OF SHEETS

XK4, XK5,

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	XK4-1	Relay Coil (-24V)	XK5-1	SD-BUS	XK3-1	SD-BUS
	-2	Relay Coil (-24V)	XK5-2	SD-BUS	XK3-2	SD-BUS
	-3					
	XK4-4					
	XK4-L-1	± Lamp	P1-34	ORN		
	-2	-8V Grd	P1-78	BLK#20	XK4-L-5	SD-BUS
	-3	-8V Grd	R7-1	RED		
	-4	Dec. Pt. Lamp	P1-35	BRN		
	-5	-8V Grd	XK4-L-2	SD-BUS		
	-6	-8V Grd	R8-1	GRY		
	-7	N.C.				
	-8	Range Card	P1-69	BLU		
	-9	1V Range	XK4-R-1	SD-BUS		
	-10					
	-11					
	XK4-L-12					
	XK4-R-1	1V Range	P1-40	YEL	XK4-L-9	SD-BUS
	-2	1V Range	S2-6	BLU		
	-3	1V Range	NW4-K	BRN		
	-4					
	-5	10V Range	E1	BLK #18		
	-6	Function Grd	P1-61	BLK #18		
	-7	100V Range	P1-42	YEL		
	-8	100V Range	S2-4	BLU		
	-9	100V Range	NW4-J	ORN		
	-10					
	-11					
	XK4-R-12					
	XK5-1	Relay Coil (-24V)	XK4-1	SD-BUS	C2 (-)	WHT-VIO-RED
	-2	Relay Coil (-24V)	XK4-2	SD-BUS		
	-3					
	XK5-4					
	XK5-L-1					
	-2	Mono Time	P1-68	Coax #32		
	-3	Mono Time	P1-67	Coax #31		
	-4					
	-5	Mono Time	P1-66	Coax #34		
	-6	Mono Time	P1-65	Coax #33		
	-7					
	-8	Sign Relay Lock	XK5-R-3	SD-BUS		
	-9	Sign Relay Lock	P1-64	BLU		
	-10					
	-11					
	XK5-L-12					
	XK5-R-1					
	-2	± Grd	E1	BLK #20		
	-3	Remote	XK3-R-5	BLK #20	XK5-L-8	SD-BUS
	-4					
	-5	Relay Code	NW4-F	BLU		
	-6	Relay Code	P1-19	BLU		
	-7					
	-8	Relay Code	NW4-E	BLU		
	-9	Relay Code	P1-18	BLU		
	-10					
	-11					
	XK5-R-12					

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1778 B 049 038 00
SHEET 15 OF SHEETS

*See Sheet #10

C1, C2, C3, DS1, J1, J2, XF1, R1-R4

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	C1-(+)	+30V CT	T1-10	WHT-RED-RED		
	C1-(-)	Filter +30V	VR1-J1-4	WHT-RED-RED		
	C3-(+)	+15V CT	T1-7	WHT-RED-ORN	NW2-J1-19	WHT-RED-ORN
	C3-(-)	Filter +15V	VR1-J1-10	WHT-RED-ORN		
	C2-(+)	+39V CT	T1-4	BLK#18	E1	BLK#18
	C2-(-)	Filter -24V	VR1-J1-18	WHT-VIO-RED	XK5-1	WHT-VIO-RED
	R1-1	-15V	R2-1	SD-BUSS	XK2-L-10	WHT-VIO-ORN
	R1-2	Bal Pot "B"	AR1-J1-9	GRN		
	R1-3	±GRD	R2-3	SD-BUSS		
	R2-1	-15V	R3-1	SD-BUSS	R1-1	SD-BUSS
	R2-2	Bal Pot "A"	AR1-J1-14	GRN		
	R2-3	±GRD	R3-3	SD-BUSS	R1-3	SD-BUSS
	R3-1	-15V	R4-1	SD-BUSS	R2-1	SD-BUSS
	R3-2	Bal Pot "B"	AR2-J1-9	GRN		
	R3-3	±GRD	R4-3	SD-BUSS	R2-3	SD-BUSS
	R4-1	-15V	R3-1	SD-BUSS	P1-28	WHT-VIO-ORN
	R4-2	Bal Pot "A"	AR2-J1-14	GRN		
	R4-3	±GRD	E1	BLK#16	R3-3	SD-BUSS
	R5-1	Resistor (1 Meg.)	E3	Res. Lead		
	R5-2	Resistor (1 Meg.)	E4	Res. Lead		
	R6-1	Resistor (10Ω)	DS1-1	Res. Lead		
	R6-2	Resistor (10Ω)	E7	Res. Lead		
	R7-1	Resistor (6.8Ω)	XK4-L-3	RED		
	R7-2	Resistor (6.8Ω)	P1-33	RED		
	R8-1	Resistor (6.8Ω)	XK4-L-6	GY		
	R8-2	Resistor (6.8Ω)	XK1-L-8	GY		
	J1-1	Input	XK3-L-2	COAX #27		
	J1-2	Input	XK3-L-8	BLK #18		
	J2-1	Input	XK3-L-2	COAX #28		
	J2-2	Input	XK3-L-8	BLK #18		
	XF1-2	117V AC (Hot)	T1-1	WHT-GRY#20 T		
	XF1-1	117V AC (Hot)	S3-1	WHT-GY#20 T	P1-70	WHT-GRY#20 T
	DS1-1	Indicator	R6-1	Res. Lead		
	DS1-2	Indicator	T1-12	WHT-BRN#20 T		

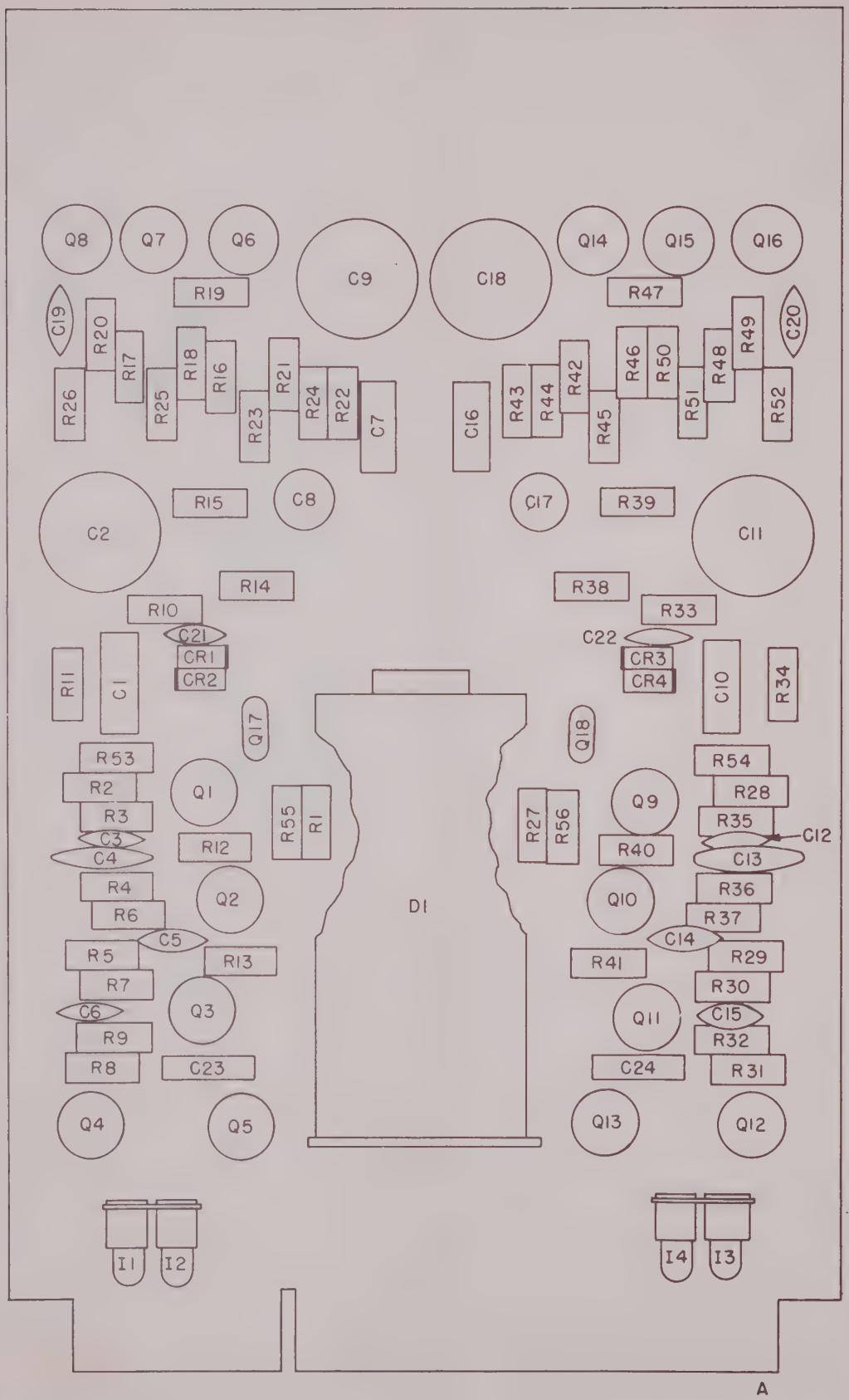
ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SHT. NO.
SIZE
REV. NO.
PROJECT 1778 B049 038 0W
SHEET 16 OF SHEETS

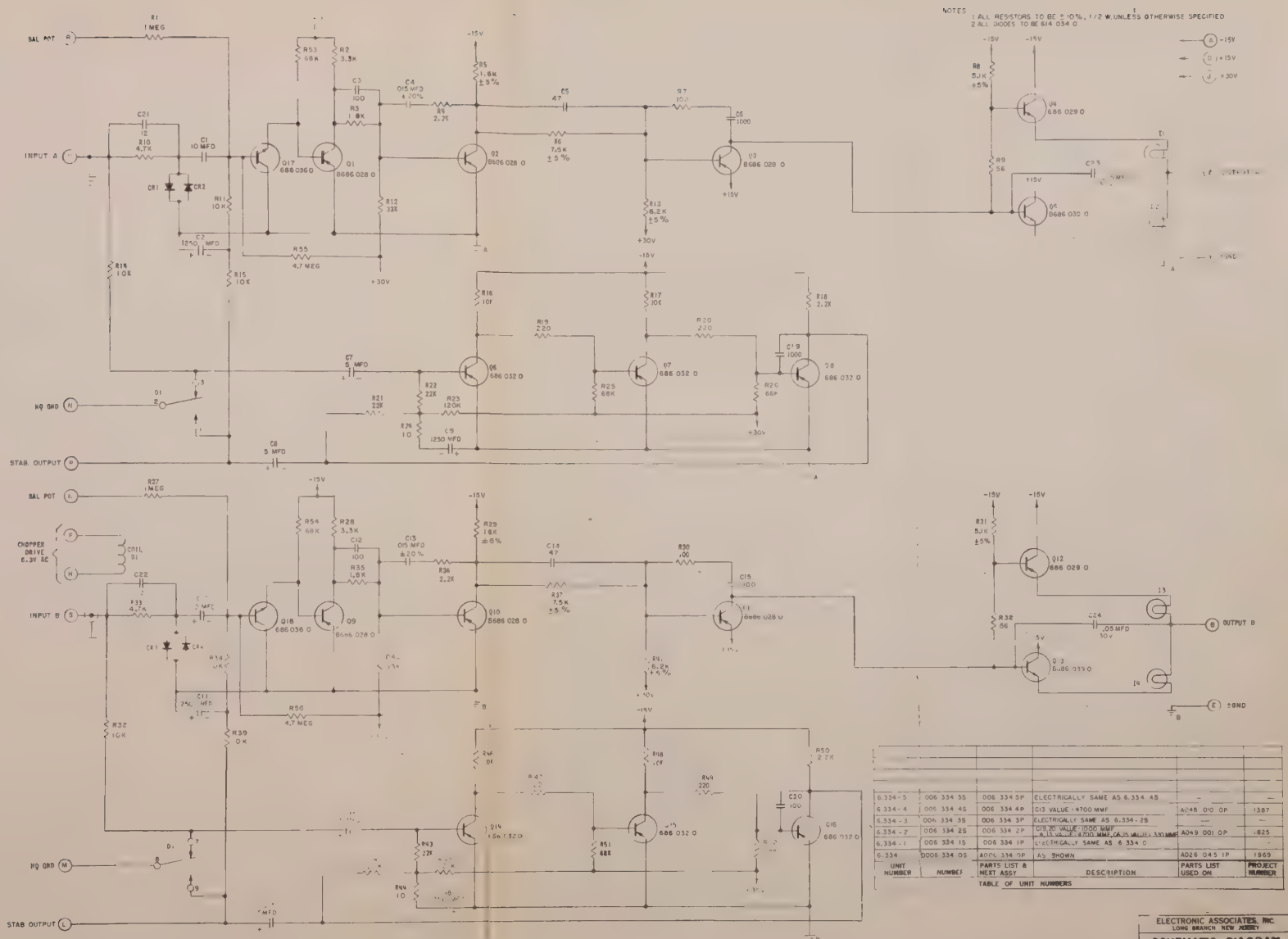
NOTE 1. All coax shields shown to E5 must be connected electrically (not necessary to return shields to E5 individually).

HARN/CABLE	TERMINAL	FUNCTION	COLUMN 1 DESTINATION	COLUMN 1 WIRE	COLUMN 2 DESTINATION	COLUMN 2 WIRE
	E1	±GRD	AR1-J1-5	BLK #18	AR2-J1-5	BLK #18
			AR1-J1-17		AR2-J1-17	
			AR1-J1-21		AR2-J1-21	
			NW1-J1-21		NW2-J1-12	
			NW2-J1-21		NW3-J1-E	
			S2-14			
			VR1-J1-21		S1-14	
			XK3-L-9		P1-60	
			XK3-R-8		XK5-R-2	
			C2-(+)		R4-3	
			E5		P2 GRD Lug	
	E1	±GRD	NW2-J1-5	BLK #18	XK4-R-5	BLK #18
	E2	HQ GRD	AR1-J1-11	BLK-WHT #18	AR2-J1-11	BLK-WHT #18
	E2	HQ GRD	AR1-J1-12	BLK-WHT #18	AR2-J1-12	BLK-WHT #18
	E3	Input "1B" 1V	XK1-L-2	COAX #20	R5-1	Res. Lead
	E4	Input	XK3-L-3	COAX #26	R5-2	Res. Lead
	E5	±GRD (AR1-J1-2)	COAX 1 & 2 Shield			
See Note 1		(AR1-J1-18)	COAX 4 & 5 Shield			
		(AR1-J1-22)	COAX 6 Shield			
		(AR2-J1-2)	COAX 7 Shield			
		(AR2-J1-15)	COAX 8 Shield			
		(AR2-J1-18)	COAX 9 Shield			
		(NW1-J1-20)	COAX 10 Shield			
		(NW3-J1-A)	COAX 11 Shield			
		(NW3-J1-B)	COAX 12 Shield			
		(NW3-J1-C)	COAX 13 Shield			
		(NW3-J1-F)	COAX 14 Shield			
		(NW3-J1-W)	COAX 3 & 15 Shield			
		(NW3-J1-X)	COAX 16 Shield			
		(NW3-J1-Y)	COAX 17 Shield			
		(NW3-J1-Z)	COAX 18 Shield			
		XK1-L-3	COAX 19 Shield			
		XK1-L-10	COAX 21 Shield			
		XK1-L-6	COAX 22 Shield			
		XK1-L-4	COAX 23 Shield			
		XK1-L-2	COAX 24 Shield			
		XK3-L-3	COAX 26 Shield			
	E5	±GRD	E1	BLK #18		
	E6	117V AC (Comm)	P2-WHT		P1-71	WHT #20
	E6	117V AC (Comm)	T1-2A	WHT #20 T		
	E7	VIB Drive (6.3V)	T1-13	BRN #20 T	R6-2	Res. Lead
	P1 GRD Lug	Chassis GRD	P1-8	BLK #20		
	P2 GRD Lug	Chassis GRD	P2-GRN		P1-72	BLK #20
	E8	117V AC (Hot)	P2-BLK		S3-2	WHT-GRY #20 T

ELECTRONIC ASSOCIATES, INC.	LONG BRANCH, NEW JERSEY
SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1778	B 049 038 OW
SHEET 17 OF SHEETS	



6.334 Dual DC Amplifier (AR2)



UNIT NUMBER	NUMBER	PARTS LIST & NEXT ASSY	DESCRIPTION	PARTS LIST USED ON	PROJECT NUMBER
6.334-5	006 334 5S	006 334 5P	ELECTRICALLY SAME AS 6.334 4S	—	—
6.334-4	006 334 4S	006 334 4P	C13 VALUE = 4700 MMF	A048 010 0P	1387
6.334-3	006 334 3S	006 334 3P	ELECTRICALLY SAME AS 6.334-2S	—	—
6.334-2	006 334 2S	006 334 2P	C19,20 VALUE=1000 MMF ALL VALUE 4700 MMF CAUS VALUES 330 MMF	A049 001 0P	825
6.334-1	006 334 1S	006 334 1P	ELECTRICALLY SAME AS 6 334 0	—	—
6.334	D006 334 0S	A006 334 0P	AS SHOWN	A026 045 1P	1969

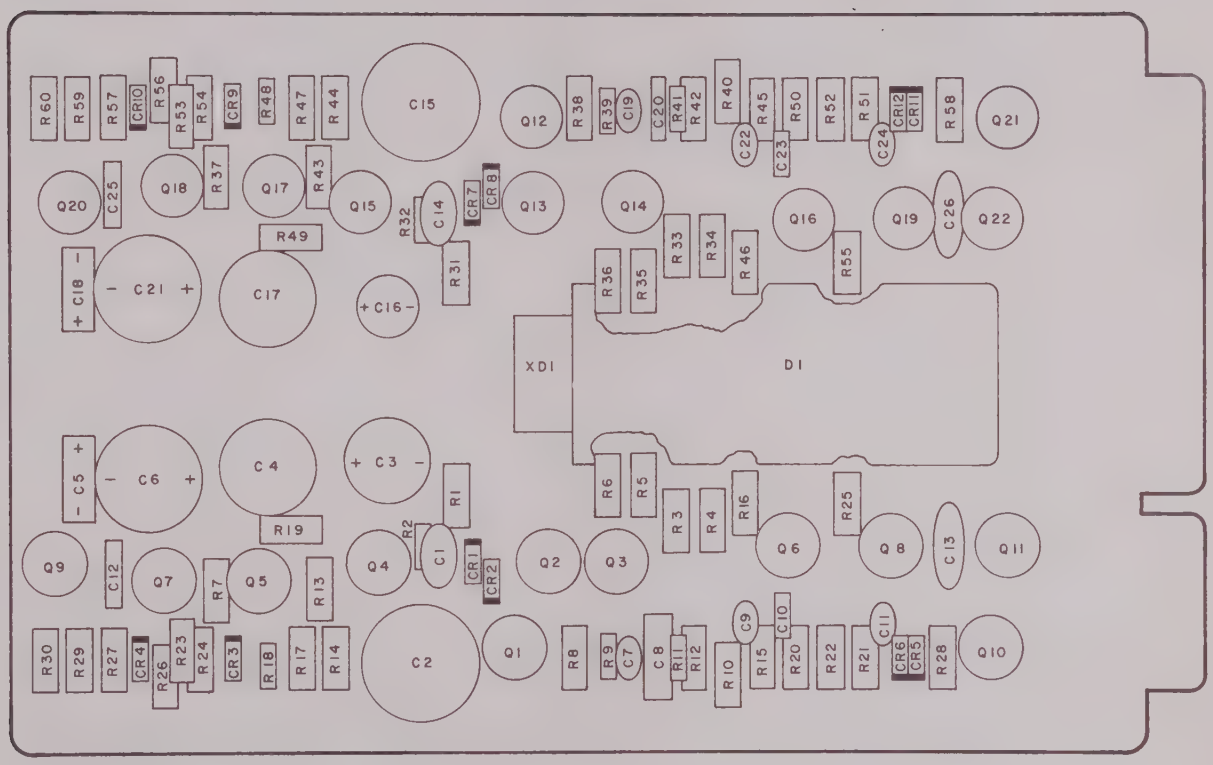
TABLE OF UNIT NUMBERS

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH NEW JERSEY

SCHEMATIC DIAGRAM
DUAL D.C. AMPLIFIER

INIT NO	
DOC	
REV. NO.	
PROJECT	1969

D 006 334 0B



6.617 Dual DC Amplifier (AR1)

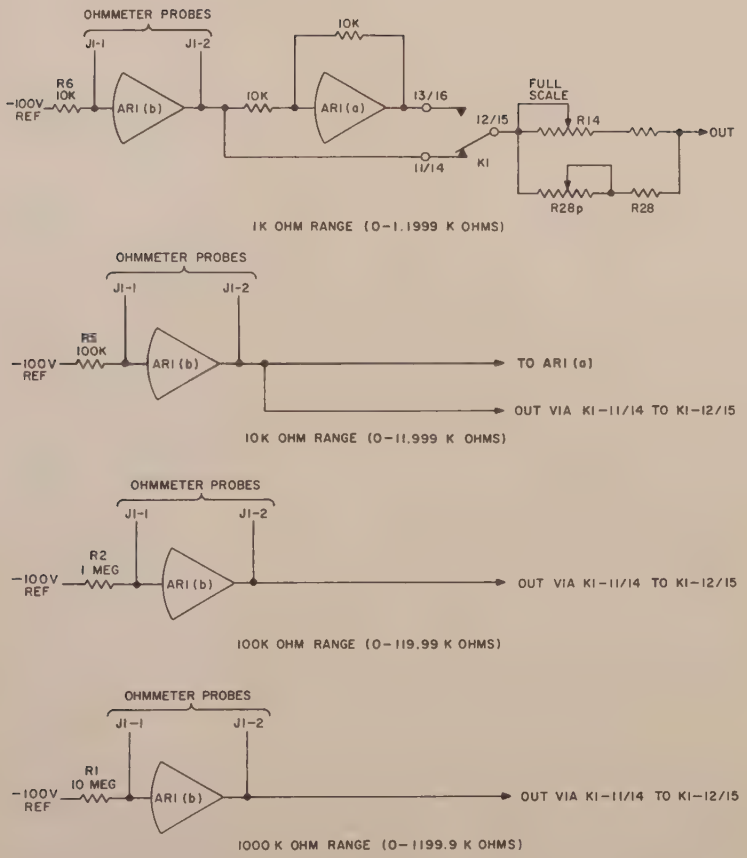


Figure 23. DC Amplifier Circuit, Simplified Schematics for each Ohms Range

a. Functional Diagram Analysis

Figure 24 is a functional diagram of the Model 49.038 Converter. For more detail, refer to Schematic D049 038 0S in Volume II of this manual. For the following description assume that the converter is set to the 1 volt range and that a 1 volt RMS signal is applied to the input.

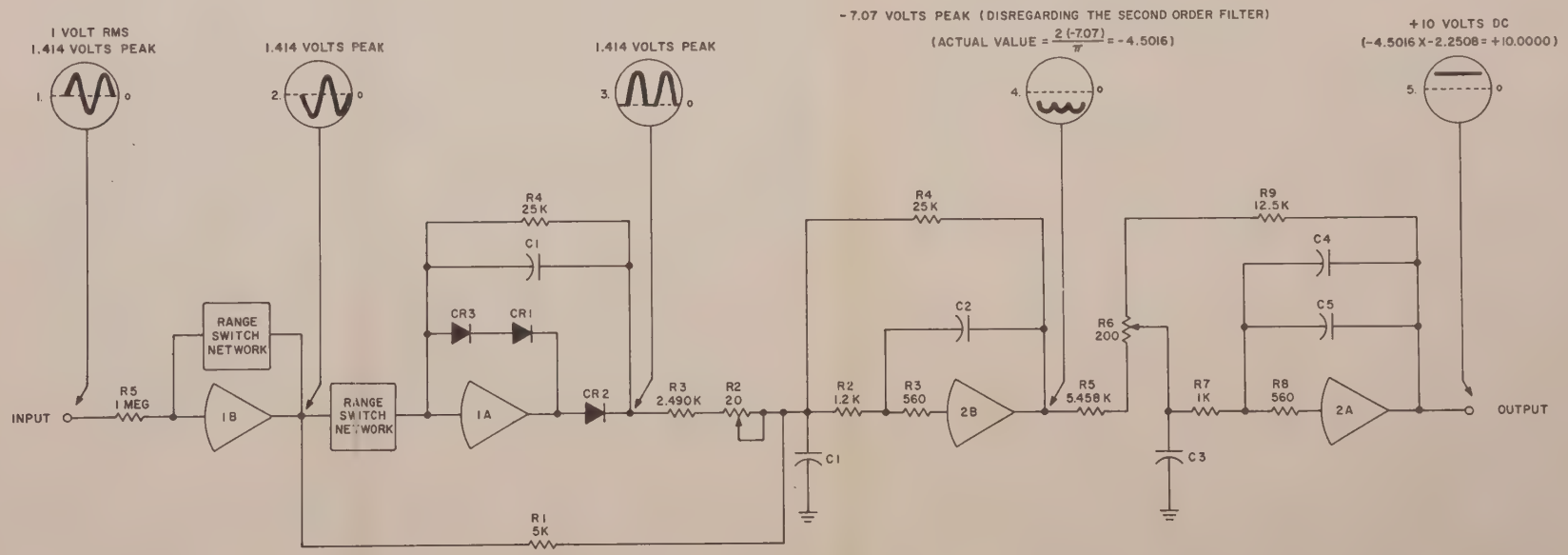
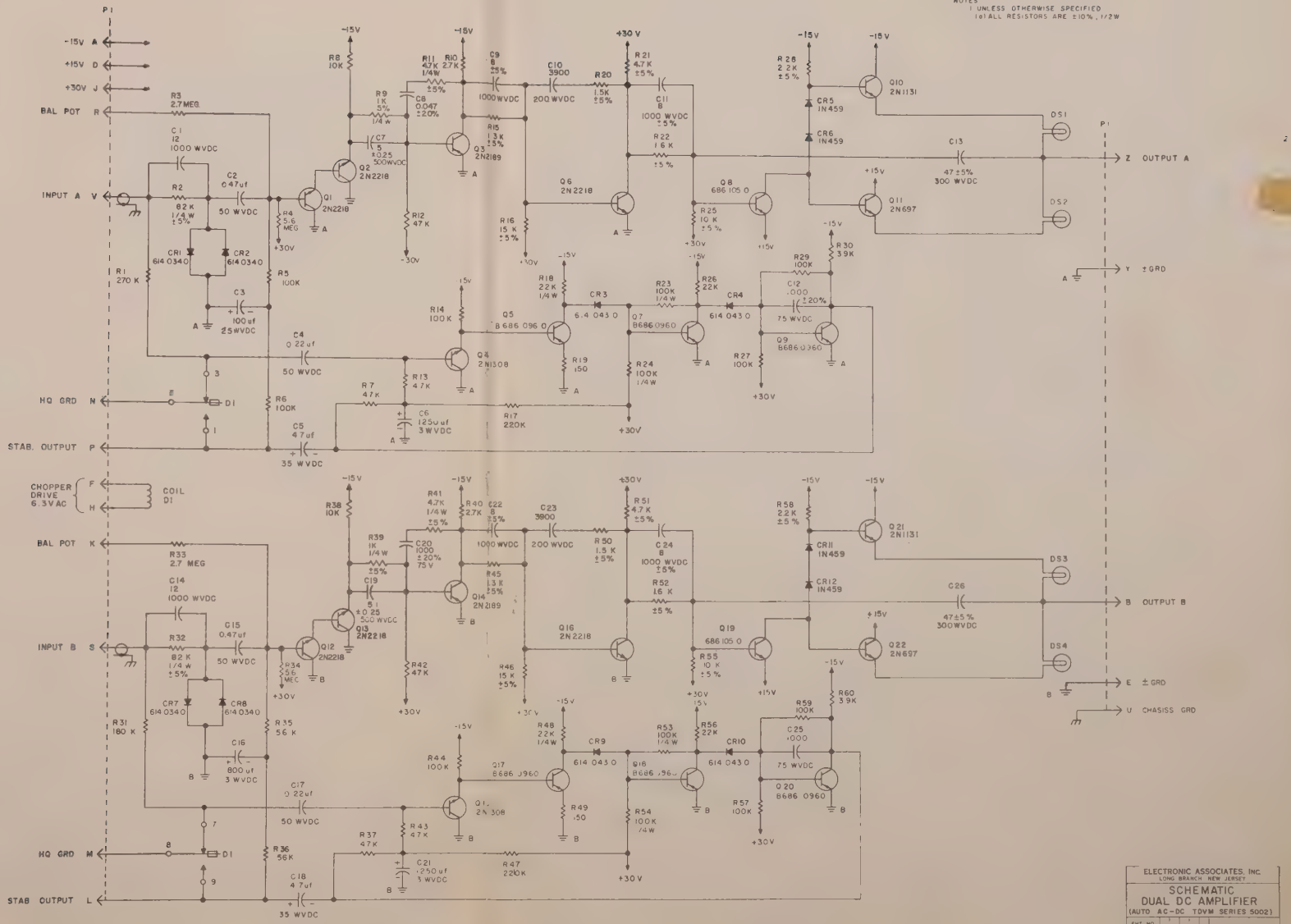


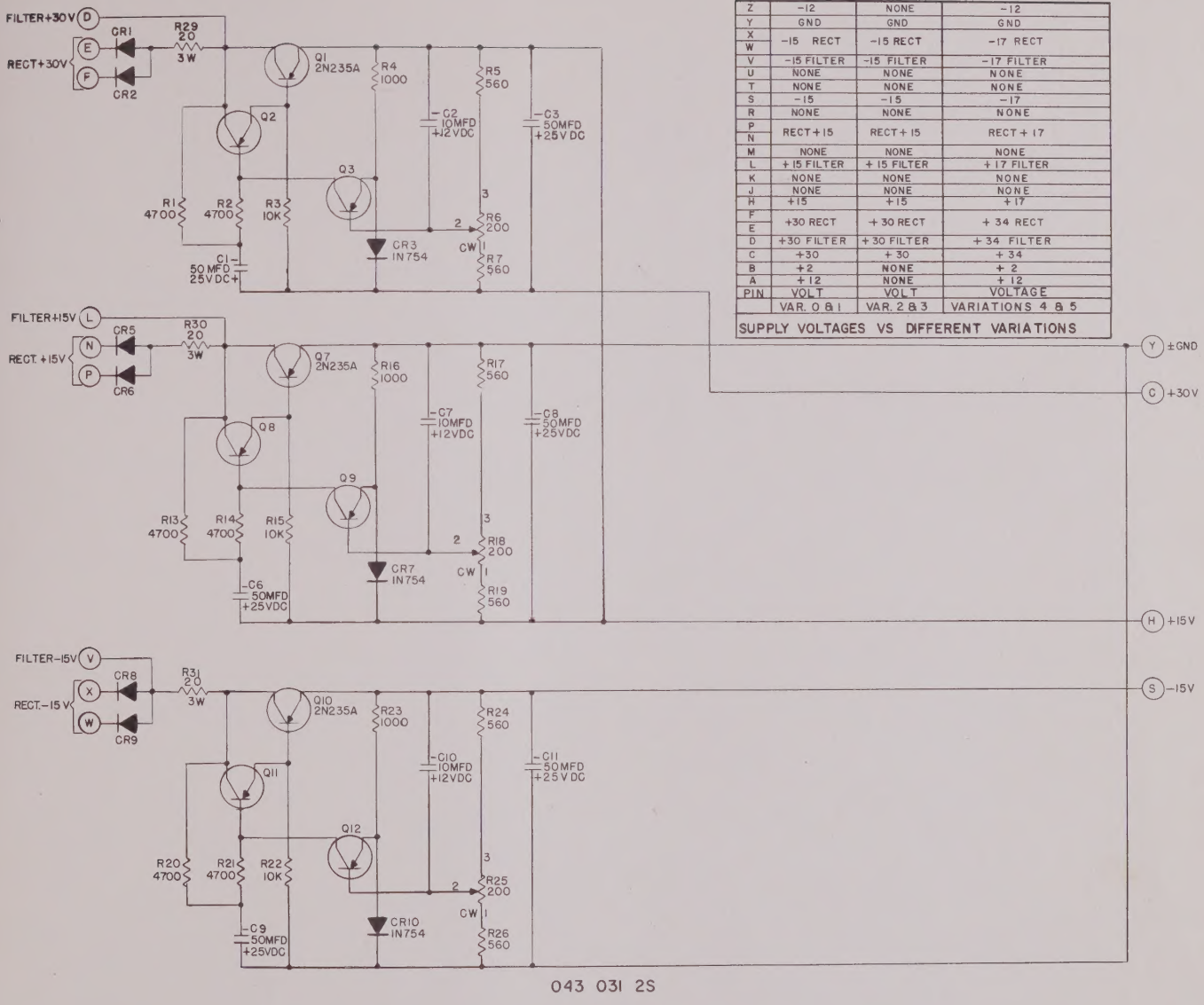
Figure 24. AC-DC Converter 49.038, Functional Diagram



ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC
DUAL DC AMPLIFIER
(AUTO AC-DC TDVM SERIES 5002)

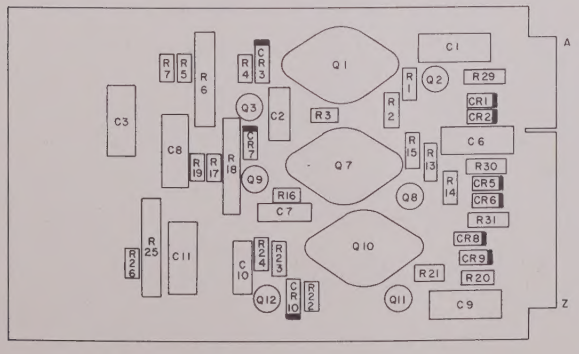
SHT. NO.
SIZE
REV. NO.
PROJECT 1778 D 006 617 OS
SHEET OF SHEETS



Z	-12	NONE	-12
Y	GND	GND	GND
X	-15 RECT	-15 RECT	-17 RECT
W			
V	-15 FILTER	-15 FILTER	-17 FILTER
U	NONE	NONE	NONE
T	NONE	NONE	NONE
S	-15	-15	-17
R	NONE	NONE	NONE
P	RECT+15	RECT+15	RECT+17
N			
M	NONE	NONE	NONE
L	+15 FILTER	+15 FILTER	+17 FILTER
K	NONE	NONE	NONE
J	NONE	NONE	NONE
H	+15	+15	+17
F	+30 RECT	+30 RECT	+34 RECT
E			
D	+30 FILTER	+30 FILTER	+34 FILTER
C	+30	+30	+34
B	+2	NONE	+2
A	+12	NONE	+12
PIN	VOLT	VOLT	VOLTAGE
	VAR. 0 & 1	VAR. 2 & 3	VARIATIONS 4 & 5

SUPPLY VOLTAGES VS DIFFERENT VARIATIONS

043 031 2S



43.031-2 Power Supply Regulator (VR1)

ELECTRONIC ASSOCIATES, INC.
LONG BRANCH, NEW JERSEY

SCHEMATIC DIAGRAM
POWER SUPPLY REGULATOR

SHT. NO.	
SIZE	
REV. NO.	
PROJECT 1825	C043 031 0S
SHEET 2 OF SHEETS	